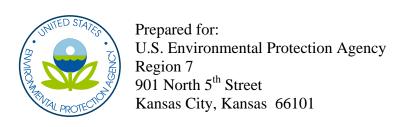
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Appendix L Lead Based Paint Recontamination Study Report



Final Lead-Based Paint Recontamination Study Report

Omaha Lead Site Omaha, Nebraska

February 2009

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ENERGY WATER INFORMATION GOVERNMENT

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Appendix B – Field Sampling Protocol for LBP Recontamination Study

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1.0 Introduction

Black & Veatch Special Projects Corp (BVSPC) has been tasked by the Environmental Protection Agency (EPA) Region 7 to perform a lead based paint (LBP) recontamination study at the Omaha Lead Site (OLS) in Omaha, Nebraska. The purpose of the study is to collect data to help determine the potential for deteriorating LBP on residential homes to elevate soil lead levels at previously remediated properties. The study at the OLS was performed under Task Order 0101 of EPA Contract No. EP-S7-05-06.

EPA began sampling residential properties and properties used for licensed child-care services in March 1999. Between March 1999 and August 2008, surface soil samples were collected and analyzed from over 35,000 residential properties. The initial boundaries of the OLS Focus Area were established at the time the site was listed on the EPA National Priorities List (NPL) in 2003. During the Remedial Investigation (RI) in 2004, the OLS Focus Area was expanded to include the area south of L Street to the Sarpy County line (Harrison Street), an area north of Ames Avenue to Redick Avenue, and an area to the west of 45th Street. The focus area was expanded in 2008 to include a portion of the area north to Read Street and west to 56th Street.

In 1999, EPA initiated response actions at the OLS involving excavation of lead-contaminated soil and replacement with clean soil. The December 2004 Interim Record of Decision (ROD) expanded the scope of the response actions to be performed at the OLS to include excavation and replacement of contaminated soils at residential properties with surface soil lead concentrations exceeding 800 ppm. In addition, child-care facilities and properties where children with elevated blood lead levels reside were made eligible for remediation if one or more mid-yard soil samples exceed 400 ppm. If the property is eligible for remediation, all soils that test greater than 400 ppm are removed, including drip-zone soils.

EPA authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to respond to the release of hazardous substances is generally limited to the cleanup of exterior environmental media, and in most cases excludes consumer products in consumer use (such as house paint). The primary environmental media being addressed at the OLS by the EPA response action is lead-contaminated soil. However, the continued effectiveness of a completed soil cleanup at a property is potentially threatened if LBP present on the exterior structure surfaces deteriorates to the point that small paint particles are produced which could become incorporated into the surface soil, resulting in soil lead concentrations that potentially exceed risk-based cleanup goals. Consistent with current policy, EPA has determined that CERCLA response authority can be applied to stabilization of deteriorating exterior LBP in cases where EPA determines that the continued effectiveness of the remedy is threatened and other parties are not available to perform this work.

During the planning for the long-term cleanup at the OLS, EPA recognized that

additional studies were needed to support a final remedy, but considered the need to move forward with an interim remedy to perform soil cleanups at the most highly contaminated properties. The Interim ROD for the OLS issued by EPA on December 15, 2004, expanded the scope of the ongoing response action to include stabilization of exterior LBP. The interim remedy now underway includes stabilization of deteriorating exterior LBP in cases where the continued effectiveness of the remedy is threatened because remediated soils could become recontaminated by small paint particles mixing with soil.

1.1 Previous Studies

In the absence of established criteria to determine the eligibility of structures to receive exterior LBP stabilization, EPA is applying a "worst case first" strategy under the interim remedy to address structures that pose the greatest threat to previously remediated soils. The lead content and condition of exterior paint is assessed for all structures located on remediated properties and on those properties that are eligible for future soil remediation under the interim remedy. An assessment of individual structures is currently used to rank properties for eligibility for exterior LBP stabilization. Under the interim remedy, EPA is proceeding with exterior LBP stabilization on those structures determined to pose the greatest threat to the continued effectiveness of soil remediation.

EPA recognizes that development of final eligibility criteria for exterior LBP stabilization is necessary to support a final remedy for the OLS. Continuing to apply a worst-case-first approach would eventually result in stabilization of exterior LBP on all structures within the OLS, which is clearly not required to protect the continued effectiveness of the remedy. Only structures where deteriorating LBP is determined to threaten the continued effectiveness of the remedy will be eligible for LBP stabilization under the final remedy.

This Recontamination Study is being designed and implemented to generate data and information that will assist in development of eligibility criteria in the Final ROD for the OLS. The recontamination study measures the increase in soil lead concentrations near structures that has occurred since soil remediation was performed and evaluates such factors as the amount of time lapsed since soil remediation occurred and the severity of deteriorating LBP conditions on structures. The recontamination study builds upon information generated during previous studies which evaluated the impact and severity of deteriorating exterior LBP at the OLS. In particular, these previous studies of interest include the Drip Zone Width Study which characterized soil lead levels near structures prior to soil remediation and exterior LBP assessments which commenced on structures at the OLS in 2006.

The interim ROD stated that "In order to prevent the re-contamination of the clean soil placed in yards after excavation, loose and flaking exterior lead-based paint that threatens the continued protectiveness of the remedy will be stabilized on affected structures prior to soil

excavation. Only those homes and other structures where lead-based paint is visibly flaking and deteriorating will be addressed." Since many structures in the focus area have some amount of visibly flaking and deteriorating LBP, EPA determined that a protocol should be developed during the interim remedy to assess the degree of LBP deterioration on structures in order to rank properties which would enable EPA to address the most severe cases of deteriorating LBP first.

EPA subsequently developed a protocol for ranking the severity of deteriorating LBP on structures that involves a soil mixing calculation that is based on the amount of LBP that could potentially fall to the ground, mix with the soil, and cause elevated soil lead concentrations. EPA identified input criteria that were needed to develop the soil mixing calculation. These criteria included the depth that the LBP would mix with surface soil and the distance from the home's foundation where the LBP could potentially mix with the soil. The depth used for the mixing calculation assumes that the LBP would mix with the soil in the top 1-inch since this is the surface soil horizon specified in the *Superfund Lead-Contaminated Residential Sites Handbook* to collect samples to assess exposure to residential soil (EPA, 2003). The Handbook indirectly characterizes the drip zone width as being between 6 inches to 30 inches from the exterior walls of the house by specifying that samples of the drip zone should be collected at that distance from the exterior walls of the house.

EPA recognized that the drip zone width was a critical input into the soil mixing calculation and that the distance specified in the Handbook might not represent the actual distance from the foundation that could potentially be impacted by lead contamination at Omaha properties. In addition to LBP, other factors could impact the distribution of lead in areas near foundations at the OLS including airborne deposition of historic industrial emissions and wash-off of lead particulates impinged on roofs, siding, or other structure surfaces. Characterization of lead concentrations in drip zone areas at the OLS was necessary to determine a representative drip zone width to be used in the soil mixing calculation.

1.2 Drip Zone Width Study

EPA performed a Drip Zone Width Study (DZWS) in 2005 to obtain site-specific information to use as an input to the soil mixing calculation. The drip zone is the area surrounding a residence that can be most readily impacted by exterior lead-based paint. Soil lead levels in drip zones can also be impacted by deposited or impinged airborne contaminants that wash from the roof or siding of structures. The drip zone includes the area adjacent to the exterior walls, overhung by eaves and guttering, if present.

BVSPC developed a DZWS Field Sampling Protocol (BVSPC, 2005) and conducted field sampling of drip zones from December 19 - 27, 2005. Thirty residences were included in the study. Soil samples were collected at 6- inch intervals on two adjacent sides of the home

from the exterior wall to 10 feet from the home. The soil samples were processed at the BVSPC field office in the same manner as other residential soil samples and were analyzed using an X-ray fluorescence (XRF) instrument.

The DZWS characterized the drip zone widths at the OLS for a representative group of homes in terms of age, location, construction type, and exterior finish. The Drip Zone Width Study provided data that determined the distance from the house foundation that was impacted by lead concentrations exceeding the soil screening level of 400 ppm was, on average, approximately 6 feet. This 6-foot width and one-inch surface soil horizon were incorporated in the mixing calculation for making quantitative assessments of the severity of the LBP problem on individual structures. EPA used this information along with the other inputs described in Appendix A, LBP Assessment Soil Mixing Calculations, to develop the quantitative LBP assessment protocols applied to OLS properties.

1.3 Lead-Based Paint Assessments

EPA began performing LBP assessments in 2006 to characterize the extent of deteriorating LBP on properties at the site and to provide information to determine if structures would be eligible for paint stabilization. The data generated during a LBP assessment is used to characterize the potential for deteriorating LBP on structure surfaces to fall to the ground, mix with soil, and result in elevated soil lead concentrations. All LBP assessments performed to date include a quantitative assessment of the extent of deteriorating LBP at each structure. At some properties, deteriorating LBP is observed, but can not be measured quantitatively; the assessment protocol provides for a qualitative assessment to be performed in such cases. To date, EPA has performed quantitative LBP assessments on more than 2,686 properties at the OLS.

The quantitative approach for assessing eligibility for paint stabilization involves measuring the amount of deteriorated LBP on a structure, and calculating the concentration of lead in surrounding soils that would result if all of the identified deteriorated paint were to fall to the ground and uniformly mix with soil under certain assumptions. The quantitative approach involves a two-step process. Initially, a LBP assessment is performed at properties that are eligible for soil remediation. This LBP assessment measures the lead content and estimates the areal extent of the deteriorated paint observed on structure surfaces. All similarly painted surfaces are assessed together, i.e., all siding, all trim, etc., if they are painted alike. The LBP assessment also measures the footprint of each structure on the property.

The second step of the process involves using the data gathered during the LBP assessment to calculate the increase in soil-lead concentration that would result if all of the deteriorating paint identified in the assessment were to fall to the ground and mix with surface soil surrounding the foundation in accordance with certain assumptions. For purposes of this

LBP calculation, the deteriorating LBP on a structure is assumed to fall onto the ground surface within six feet of the foundation and be uniformly mixed with the top one inch of soil. The resulting increase in soil-lead concentration in drip zone soils potentially caused by deteriorating LBP provides a quantitative measure of the severity of LBP deterioration on individual structures. This measure can be used to rank properties based on the potential for recontamination of soil to occur. The soil mixing calculation is described in Appendix A of this work plan.

In some cases, a significant lead-based paint problem may be observed, but not measured, using the quantitative approach. For example, severely deteriorated lead-based paint may be observed, but not tested for lead content, on a component of a structure such as an upper-floor eave or soffit that is inaccessible during the quantitative lead-based paint assessment. Without measuring the lead content of the inaccessible surface, it is not possible to quantitatively assess the potential impact of the observed deteriorating paint on drip zone soil For this reason, the lead-based paint assessment also includes a lead concentrations. qualitative assessment describing any significant deteriorated paint problem that is observed for each structure. If a structure is determined to not be eligible for paint stabilization on the basis of the quantitative approach, but a significant deteriorated paint problem is documented during the lead-paint assessment, then the property may be revisited by an experienced lead hazard control professional to determine if paint stabilization is warranted at that property.

Lead-Based Paint Stabilization Under Interim Remedy 1.4

The EPA and the City of Omaha Lead Hazard Control Program (LHCP) are performing exterior LBP stabilization at properties determined to be eligible on the basis of the quantitative and qualitative assessment performed on each structure using a worst-case first approach. Lead-safe procedures are used to prepare the deteriorated surfaces, followed by priming and painting of all previously painted surfaces on eligible structures. Following stabilization, yard surfaces are vacuumed using high efficiency particulate air (HEPA) fitted equipment to remove visible paint chips. The LBP stabilization program was initiated by the Omaha LHCP in 2007. EPA and LHCP continued the stabilization program through joint efforts in 2008.

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2.0 Lead-Based Paint Recontamination Study Approach

The primary objectives of this study are to determine the potential for elevated soil lead levels to develop in the drip zone area of properties due to deteriorating LBP where surface soils have been remediated and to generate data and information that will assist in the development of eligibility criteria for LBP stabilization in the final remedy. The soil samples collected during this study were not collected for comparison to risk-based or health-based soil lead criteria. The data generated during this Recontamination Study are not intended, and should not be interpreted, to characterize exposure areas of the property for risk assessment purposes. Individual soil sample results at a property have been averaged in this report for the purpose of comparison to risk-based screening criteria, but the data is not intended or well suited for this purpose.

EPA recognizes the need to develop final eligibility criteria that will be used to determine which structures are eligible for paint stabilization during the final remedy. The final eligibility criteria will be included in the final ROD. The LBP recontamination study will provide the following information:

- Data to support a determination of whether some degree of recontamination of soils is
 occurring due to deteriorating LBP falling to the ground at properties where the soil
 has been previously remediated.
- Data to determine whether other factors such as the degree of LBP deterioration or the length of time that has passed since the soil remediation was performed affect the degree of recontamination that may be occurring.
- Data to support a determination of whether high efficiency particulate air (HEPA)
 vacuuming at remediated properties affects the degree of recontamination that may
 remain following LBP stabilization.

In order to collect data to meet objectives of the Recontamination Study, soil sampling was performed at properties where soil remediation had been completed both before and after exterior LBP stabilization had been performed. Sampling of remediated properties prior to paint stabilization characterizes conditions that may develop if no mitigative measures are taken to reduce the impact of deteriorating LBP on remediated soils. Soil sampling performed at remediated properties following exterior LBP stabilization characterizes conditions that result after mitigative measures, i.e., HEPA vacuuming of exposed surface soils to remove visible paint chips, are performed.

Sampling protocols used are consistent with the protocols historically used to collect routine soil samples from residential properties and those used in the December 14, 2005 Drip Zone Width Determination Study. Individual three-aliquot samples were collected along two transects at each property at six-inch intervals starting at the foundation and continuing for a distance of 10 feet away from the foundation wall. A maximum of 21 individual samples could be collected along each ten-foot transect at six-inch intervals. The presence of sidewalks, dense shrubbery, or other interfering factors could prevent the collection of individual soil samples at each of the six-inch intervals along each transect. In these instances where no sample could be collected, the data entry for that particular interval appearing in this report is left blank. The field sampling protocols used for this LBP Recontamination Study are presented in Appendix B. All soil sampling was performed in accordance with the Quality Assurance Project Plan prepared by BVSPC for the OLS (BVSPC, 2007).

2.1 Sampling Properties Prior To Paint Stabilization

A total of 42 homes where soil remediation has been completed, but have not had paint stabilization performed were targeted for drip zone sampling based on the following criteria:

- The drip zones that were sampled were located on properties where EPA had previously remediated the soil. To evaluate if the length of time from the remediation of the property has any effect on whether the property becomes recontaminated, BVSPC attempted to selected a similar number of remediated properties from every year (2000 and 2002-2007) that EPA had remediated properties (EPA did not remediate properties in 2001).
- Only drip zones adjacent to residential yard quadrants that have been remediated were sampled. If possible, homes that had 2 quadrants remediated were selected and the drip zones adjacent to each of the quadrants were sampled.
- Structures included only those with painted sidings. Homes with brick or other permanent or factory finished sidings were not sampled unless the house had trim with deteriorated paint.

As previously discussed, BVSPC has and is continuing to perform LBP assessments on residential structures in the OLS that are eligible for remediation. For a reference point, the LBP assessment calculation sheet estimates the mass of lead in drip zone soils that would equate to a lead concentration of 400 ppm in the drip zone of each structure. The LBP assessment also estimates the total mass of lead that is present in deteriorating paint at each home. The total mass of lead in deteriorated surfaces is then compared to the mass of lead corresponding to a 400 ppm drip zone lead concentration for that particular structure. When

the total mass of lead present in the deteriorating paint is larger than the lead mass that would equate to a soil lead concentration of 400 ppm in the drip zone, the lead concentration in the drip zone could become greater than 400 ppm if all of the deteriorated paint were to fall to the ground and uniformly mix with the soil under the stated assumptions. As the difference in the two numbers becomes larger, the potential for lead recontamination of the drip zone becomes greater. An example LBP assessment calculation sheet is provided in Figure 2-1.

During the LBP Recontamination Study, BVSPC attempted to collect soil samples from the following types of properties:

- Two homes that were remediated in each year (2000 and 2002-2007) at properties with the largest difference between the mass of lead in deteriorated paint and the 400 ppm-equivalent drip zone lead mass. These properties would potentially have the greatest potential for recontamination of the drip zone.
- Two homes from each year (2000 and 2002-2007) where the mass of lead in deteriorated paint is only slightly greater than the 400 ppm-equivalent drip zone lead mass. These homes would potentially provide information on drip zone recontamination when smaller amounts of deteriorating lead based paint were present on the home.
- Two homes from each year (2000 and 2002-2007) where the mass of lead in deteriorated paint is 6 to 8 times greater than the 400 ppm-equivalent drip zone lead mass. These properties would potentially provide information on potential drip zone recontamination of properties that were between the other two groups.

One soil sample was collected from the outside corner of each remediated quadrant (away from any structure, including neighboring buildings) where the drip zone was sampled to verify the soil that was imported and used as new cover was not contaminated.

2.2 Sampling Properties Following Paint Stabilization

As previously discussed, the EPA and the City of Omaha LHCP are performing LBP paint stabilization at homes where the remediated soils could become recontaminated by paint particles mixing with the soil. The LBP stabilization program was initiated by the Omaha LHCP in 2007. EPA and LHCP have continued to perform paint stabilization at OLS properties in 2008 using a worst-case-first approach.

The purpose of sampling homes that have had paint stabilization completed is to assess the soil in the drip zone following the paint stabilization process. HEPA vacuuming of exposed surface soil is performed following LBP stabilization in an attempt to remove paint chips that could contribute to soil recontamination.

Figure 2-1 Example Lead-Based Paint Calculation Sheet

Omaha Lead Site

<ID> - House

Estimate of Potential Contamination due to Deteriorating Lead Paint, based on LBP Assessment Data

Sample Area ID (BVID): NNNNN Date: 01/12/07

Property Address: 123 Example St Verified by:

1. Building Perimeter

Building Perimeter: 162 ft

2. Calculation of impacted soil area - 6-foot wide strip around structure:

Impacted Soil Area: 972 ft² Assume a 6 foot wide area x house perimeter

Impacted Soil Corner Area: 144 ft² 4 corners of home at 6-foot by 6-foot

Total Impacted Soil Area: 1116 ft² perimeter + corner area

3. Calculation of impacted soil mass - assumes lead paint mixed into the top 1" (0.0833 ft):

Total Impacted Soil Volume: 93.00 ft³ area x .0833 ft

Unit conversion factor: 28,316.8 cm³/ft³

Impacted Soil Volume: 2,633,467 cm³ volume x conversion factor

Assumed soil density: 1.6 g/cm³

Mass of impacted soil: 4,213,547 g volume x density Mass of impacted soil: 4,214 kg 1,000 g = 1.0 kg

4. Calculation of lead mass in impacted soil that will result in soil lead concentration of 400 ppm:

Interim ROD Cleanup level: 400 mg/kg

Lead mass in impacted soil that will result in soil lead concentration of 400 ppm = 1.69 kg mass of impacted soil x 400 mg/kg, divided by 1,000,000

5. Tabulation of potential lead contamination:

		Lead Loading	Deteriorated	Deteriorated	Lead	Lead	
Sample #	Structure - Feature	[mg/cm ²]	Area [ft²]	Area [cm²]	[mg]	[kg]	
H-E-P-01	Porch - Column	16.44	2	1,858	30,547	0.031	
H-E-P-02	Porch - Ledge	28.19	3	2,787	78,568	0.079	
H-E-P-03	Door - Trim	23.07	5	4,645	107,164	0.107	
H-E-P-04	Porch - Floor	3.71	50	46,452	172,335	0.172	
H-E-P-05	Porch - Ceiling	27.42	2	1,858	50,948	0.051	
H-E-P-06	Soffit	29.85	265	246,193	7,348,863	7.349	
H-E-P-07	Siding - Trim	16.64	2	1,858	30,918	0.031	
H-E-P-08	Foundation - Lattice	ND*	10	9,290	0	0.000	
H-S-P-09	Foundation	ND*	17	15,794	0	0.000	
H-S-P-10	Window - Trim	18.51	40	37,161	687,854	0.688	
H-N-P-11	Foundation - Lattice	13.77	5	4,645	63,964	0.064	

Total amount of potential lead 8.571 kg

6. Does the deteriorating LBP result in a lead concentration in impacted soil greater than 400 ppm using the stated mixing assumptions? YES

7. Contamination Potentia	I, Highest to Lowest						
Sample #	Structure - Feature	Lead Loading [mg/cm ²]	Deteriorated Area [ft²]	Deteriorated Area [cm²]	Lead [mg]	Lead [kg]	Sum of Lead
H-E-P-06	Soffit	29.85	265	246193	7348863	7.349	7.349
H-S-P-10	Window - Trim	18.51	40	37161	687854	0.688	8.037
H-E-P-04	Porch - Floor	3.71	50	46452	172335	0.172	8.209
H-E-P-03	Door - Trim	23.07	5	4645	107164	0.107	8.316
H-E-P-02	Porch - Ledge	28.19	3	2787	78568	0.079	8.395
H-N-P-11	Foundation - Lattice	13.77	5	4645	63964	0.064	8.459
H-E-P-05	Porch - Ceiling	27.42	2	1858	50948	0.051	8.510
H-E-P-07	Siding - Trim	16.64	2	1858	30918	0.031	8.541
H-E-P-01	Porch - Column	16.44	2	1858	30547	0.031	8.571
			Total amo	unt of potenti	al lead	8.571 kg	

A total of 21 homes that had paint stabilization performed were targeted for drip zone sampling based on the following criteria:

- The drip zones sampled were located on properties where EPA had previously remediated the soil and performed LBP stabilization.
- If possible, homes that had 2 quadrants remediated were selected and the drip zones adjacent to each of the quadrants were sampled.
- The house must have painted sidings or trim with deteriorated paint.

BVSPC attempted to collect soil samples from the following types of properties:

- Seven homes that had paint stabilization performed and had the largest difference between the mass of lead in deteriorated paint and the 400 ppm- equivalent drip zone lead mass, based upon the results on the Lead Based Paint Calculation Sheet, were selected for drip zone sampling.
- Seven homes that had paint stabilization performed where the mass of lead in deteriorated paint is only slightly greater than the 400 ppm-equivalent drip zone lead mass, based upon the results on the Lead Based Paint Calculation Sheet, were selected for drip zone sampling.
- Seven homes that had paint stabilization performed where the mass of lead in deteriorated paint was 6 to 8 times greater than the 400 ppm-equivalent drip zone lead mass were selected for drip zone sampling.

One soil sample was collected from the outside corner of each remediated quadrant (away from any structures) where the drip zone is sampled to verify the soil that was imported and used as new cover was not contaminated.

3.0 Lead-Based Paint Recontamination Study Protocols

The LBP recontamination study was conducted at previously remediated properties where a LBP assessment had been performed. Exposed surface soil within ten feet of the foundation of the selected properties was sampled using the methods for residential soil sampling presented in Appendix B.

3.1 Access Agreement Signature

The field teams obtained the property owner's consent (a signed access agreement) to conduct the soil sampling for the LBP recontamination study. Participation in the LBP recontamination study was completely at the discretion of the property owner.

3.2 Lead-Based Paint Recontamination Study Field Sheet

The field team documented the sampling locations on the LBP recontamination study field sheet. The field team also prepared a sketch of the house that presented the following information:

- Site grading and drainage (positive [away from structure] or negative).
- Number of stories, roof overhang (measured if possible) and distance from ground to soffit.
- Presence of gutters, location of downspouts and drainage swales.
- Exterior finish.
- Paint condition and XRF results.
- Drip zone features such as presence of vegetation, mulch, bare ground, visible paint chips, etc.
- Drip zone sample locations and wall orientation (N, S, E, W).
- Digital photos were taken at each sampling location.

The completed field sheets are presented in Appendix C.

4.0 Sample Identification

Sample numbers were assigned as described in a previous study, the Drip Zone Width Determination Study Field Sampling Protocol (BVSPC, 2005), with the following exception. The prefix R was added to the beginning of the sample number to designate that the sample was collected as part of the LBP recontamination study. The sample identification numbers were assigned as follows:

RDZ-##-N(S, E, or W)-BVID#, where N, S, E, or W refers to the exterior wall orientation.

Quality Control (QC) confirmation samples were collected at the rate of 1 in 20 samples. These samples were submitted to the EPA Region 7 laboratory for metals analysis. The confirmation samples were identified by placing an "L" after the directional qualifier. For example, a confirmation sample was identified as follows:

RDZ-##-N(S, E, or W)L-BVID#

5.0 Field Investigation Results

Twenty-five properties were sampled where soil remediation had been completed but paint stabilization had not yet been performed. A total of 945 individual soil samples were collected during this Recontamination Study at these 25 pre-stabilization properties. In addition, 21 properties were sampled where both soil remediation and paint stabilization had been performed. A total of 810 individual soil samples were collected at these twenty-one post-stabilization properties.

This Recontamination Study characterizes soil lead concentrations at a total of 46 properties of the more than 45,000 properties within the final focus area of the OLS. Due to the relatively small sample size, the conditions found at the properties during this study, either individually or collectively, can not necessarily be considered representative of conditions at all properties across the site. The general observations about the data that are presented in this report should be considered with an awareness of the limitation of this data to represent overall conditions at the site due to the relatively small sample size.

Sampling was performed at fewer properties during the Recontamination Study than the number of properties originally targeted for sampling in the work plan because properties with the selected criteria were either not available or because the property owners were not willing or interested in participating in the study. Table 5-1 presents the properties sampled in each category during the LBP Recontamination Study.

5.1 Properties Sampled Prior to Paint Stabilization

The individual soil lead concentrations measured in the samples collected from the 25 properties prior to paint stabilization are presented in Table 5-2. The table presents the lead concentrations measured at 6-inch intervals from the foundation. The table also presents the average lead concentrations within 6 feet of the foundation (considered the drip zone width at the OLS) and the average soil lead concentration at a distance of 6 feet to 10 feet from the foundation. The completed field sheets for these properties are presented in Appendix C.1.

As discussed in Section 2, the soil samples collected during this study were not collected for the purpose of determining if risk-based soil lead levels are exceeded. The data is not intended, nor should it be interpreted, to characterize exposure concentrations at each property for risk assessment purposes. The 400 ppm lead screening level for soil at residential properties is typically based on an average concentration in mid-yard areas where exposure to soil is expected to occur. Lead concentrations detected in drip zones are not considered as relevant as mid-yard concentrations for determining the health risks from contact with lead-contaminated soils.

Table 5-1 Properties Sampled for LBP Recontamination Study Omaha Lead Site Omaha, Nebraska

	Paint Stabilization Not Performed on Home												
	Potential :	for Recontamination of So	il										
Year	Low	Medium	High										
2000	0	0	0										
2002	3099, 3112	2227	0										
2003	25287	2322, 23648	25002, 30260										
2004	23160, 28165	23412	22355, 23680										
2005	27559, 37777	0	0										
2006	51575	23974	200, 22219										
2007	27081, 48713	18403, 26945	1041, 1587										
	Paint Stabili	zation Performed on Home	e										
	Potential :	for Recontamination of So	il										
	Low	Medium	High										
	10271, 16811, 28447,	24467, 27348, 31060,	25210, 27332, 30170,										
	29876, 30049, 33688,	29669, 30055, 33212,	30178, 30327, 33775										
	33941, 34823	40663											

Table 5-2
Lead Concentrations in Soil Samples Collected from Properties Prior to Paint Stabilization
Omaha Lead Site
Omaha, Nebraska

SAMPLE_AREA_ID	REMEDIATION	RATIO	DIRECTIO	N PAINT CHIPS	0 ft.	0.5 ft.	1.0 ft.	1.5 ft.	2.0 ft.	2.5 ft.	3.0 ft.	3.5 ft.	4.0 ft.	4.5 ft.	5.0 ft.	5.5 ft.	6.0 ft.	6.5 ft.	7.0 ft.	7.5 ft.	8.0 ft.	8.5 ft.	9.0 ft.	9.5 ft.	10.0 ft.	Avg Concentration	Avg Concentra
	DATE	1		DETECTED																				1		w/in 6 ft. of	6 ft to 10 ft fro
				IN DRIP ZONE																						Foundation	Foundation
200	2006	High	E	YES	2898	613	556	165	37	40	33	31	33	20	28	26	33	30								347	30
200	2006	High	S	YES	4503	172					1032	975	166	34	19	23	25	29	24	28	22	21	23	23	24	772	24
1041	2007	High	N	YES	66	34	29	30	26	23	23	25	27	20	22	26	25	25	27	30	23	32	26	26	25	29	27
1041	2007	High	S	YES	31	24	20	35	22	23	35	24	26	20	24	28	24	24	26	24	20	20	24	25	21	26	23
1587	2007	High	N	YES	29	41	32	26	20	23	24	27	22	36	22	29	19	21	24	24	26	20	25	18		27	23
1587	2007	High	S	YES	30	21	22	22	20	26	27	23	26	22	17	25	28	22	23	20	21	27				24	23
2227	2002	Medium	Е	YES	610	114	104	156						347	57	68	37	43	44	88	50	42	59	124	454	187	113
2227	2002	Medium	N	YES	390	204	148	237	101	107	110	80	80	92	86	77	72	107	50	40	34	33	27	30	30	137	44
2322	2003	Medium	Е	YES	24	23	30	64	18	17	21	18	28	20	14	17	20	26	24	21	21	24	16	19		24	22
2322	2003	Medium	S	YES	321	82	103	126	78	62	57	47	43	42	30	32	33	25	26	34	38	48	40	41		81	36
3099	2002	Low	Е		178	130	99	94	76	83	43	67	47	57	46	32	53	47	51	60	72	48	58	48	54	77	55
3099	2002	Low	S		50	41	127	23	29	26	24	83	217	70	308	346	257	204	135	139	90	81	98	100	89	123	117
3112	2002	Low	S		727	373	166	135	84	97	76	81	113	122	102	162	126	146	93	77	58	46	47	51		182	74
3112	2002	Low	W		237	502	349	167	162	148	104	207	67	48	89	48	39	38	26	34	20	26	22	26		167	27
18403	2007	Medium	Е	YES	40	23	35	28	54	29	31	47	27	32	21	19	27	27	29	25	31	30	16	27	29	32	27
18403	2007	Medium	S	YES	35	31	25	37	23	26	36	47	35	24	34	32	36	48	66	76	205	261	146	203	84	32	136
22219	2006	High	S	YES	123	60	99	203	417	1				197	65	38	48	40	44	48	67	55	56	77		139	55
22219	2006	High	W	YES	361	109	100	89	1				155	91	46	42	47	41	30	26	26	36	38	40	1	116	34
22355	2004	High	N	YES								916	227	186	142	49	53	62	43	122	63	43	40	68		262	63
22355	2004	High	W	YES	788	240	293	2401	1809	764	471	415	196						155	112	77	41	30	35		820	75
23160	2004	Low	E	YES	35	27	31	27	74	67	42	27	24	32	20	20	23	22	24	20	19	22	25	18		35	21
23160	2004	Low	S	YES	46	42	121	41	50	66	66	30	30	31	21	24	19	19	29	25	23	21	29	16		45	23
23412	2004	Medium	E	YES	33	182	147	169	73	31	51	159	57	30	52	36	138	40	52	34	31	23	33	29		89	35
23412	2004	Medium	N	YES	26	34	36	24	29	34	28	26	23	20	42	26	30	32	29	34	25	38	19	17		29	28
23648	2003	Medium	E	120	58	32	20	21	21	20	27	30	29	32	28	23	21	26	32	34	26	34	28	28		28	30
23648	2003	Medium	N		79	28	27	23	35	31	21	21	23	22	61	15	16	20	22	23	25	19	22	25		31	22
23680	2004	High	E		38	33	101	40	30	25	26	62	27	27	25	66	22	24	25	26	13	24	22	23		40	22
23680	2004	High	S		33	708	295	199	34	23	28		188	41	41	35	86	29	34	30	33	34	56	28		138	35
23974	2004	Medium	S	YES	775	45	35	41	46	45	38	72	62	70	46	49	47	60	79	67	98	77	88	72	33	105	72
23974	2006	Medium	W	YES	256	131	89	125	154	84	46	51	88	70	40	49	41	00	19	163	62	34	41	36	44	114	63
25002	2003		E	YES	95			74	57	330		812		E00	297	114	343	104	381	434		32	54	47	57	283	160
		High				47	66				418		433	588				42		71	169				24		
25002	2003	High	W	YES	791	886	446	308	166	100	244	81	64	72	63	37	29		46		52	63	30	34	24	253	45
25287	2003	Low	E	YES	1653	110	89	132	231	420	339	250	125	103	60	57	53	58	67 75	84	81	38	40	24	1	279	56
25287	2003	Low	S	YES	1302	945	677	630	572	356	429	381	385	307	183	133	118	81	75	90	60	60	53	75	60	494	71
26945	2007	Medium	E 0	YES	52	21	20	22	19	17	16	19	16	19	20	20	18	20	17	23	19	19	20	14	20	21	19
26945	2007	Medium	S	YES	912	897	1467	859	934	899	00	0.4	00	40	0.1	00	17	21	15	20	26	22	23	17	17	855	20
27081	2007	Low	E	YES	367	284	236	237	199	193	33	31	36	42	31	30	29	28	43	31	28	22	23	20	22	134	27
27081	2007	Low	N	YES	346	366	287	325	390	110	119	137	108	144	156	92	93	86	83	79	80	40	37	37	25	206	58
27559	2005	Low	N	YES	<u> </u>						25	46	29	26	29	35	39	39	41	52	56	47	37	57	119	33	56
27559	2005	Low	S	YES	154	35	27	24	31	20	29	34	26	24	28	16	28	32	30	28	16	20	27	19	19	37	24
28165	2004	Low	N	YES	1576	79	34	25	91	72	43	46	38	37	30	16	29	28	19	20	30	28	24	22	26	163	25
28165	2004	Low	W	YES	635	115	39	49	40	48	48	110	702	1024	592	879	714									384	<u> </u>
30260	2003	High	N	YES	61	33	39	104	88	69	131	112	43	89	98	58	33	47	51	88	54	53	116	141		74	79
30260	2003	High	W	YES	140	202	52	210	106	40	158	89	81	71	50	33	28	68	30	60	28	30	29	36		97	40
37777	2005	Low	Е	YES	114	62	55	284					39	26	27	19	23	20	18	19	31	22	29	25	22	72	23
37777	2005	Low	N	YES	60	37	48	32	51	72	42					56	27	25	20	19	20	25	22	25	20	47	22
48713	2007	Low	N	YES					286	46	35	22	20	27	21	25	23	27	25	26	38	19	25	23		56	26
48713	2007	Low	W	YES							270	27	26	26	28	26	23	20	20	31	26	34	23	27	24	61	26
51575	2006	Low	E	YES	24	19	49	104	32	1744	132	459	467	178	308	97	147	97	196	64	56	157	105	87	367	289	141
51575	2006	Low	N	YES	46	48	57	35	37	47	55	93	65	59	45	43	34	53	83	63	46	166	114	107	77	51	89

All lead concentrations are in mg/kg

The individual soil sample results from each property transect sampled during this study have been averaged from 0-6 feet from the foundation to better approximate drip zone conditions on one side of the structure, and averaged from 6-10 feet to better approximate conditions that exist toward mid-yard areas. These averages are presented for discussion purposes, but both the individual and averaged data are not intended or well suited for assessing risks associated with exposure to these soils. Individual sample concentrations and average concentrations are compared to the 400 ppm lead screening level in this report for a point of reference, but this comparison is not intended as a measure of risk associated with exposure to soil lead levels in drip zone or mid-yard areas at individual properties.

Table 5-2 presents the lead concentrations measured in each of the 945 soil samples collected at the 25 pre-stabilization properties in this study. Table 5-3 presents the average lead concentrations and the total number of soil samples collected, the average lead concentrations and the number of soil samples collected within 6 feet of the foundation, and the average lead concentrations and the number of soil samples collected from 6 to 10 feet from the foundation of the home.

The average lead concentration for all samples collected from the 25 pre-stabilization properties was 113 ppm. The average lead concentration for the 588 samples collected from these properties within 6 feet of the foundation was 148 ppm. The average lead concentration in the 357 samples collected at distances greater than 6 feet from the foundation wall at these properties was 51 ppm.

Of the 945 soil samples collected from pre-stabilization properties, 51 samples (5.4%) had concentrations exceeding 400 ppm. Forty-nine of the 51 individual soil samples that exceeded 400 ppm were collected within 6 feet of the foundation. Within 6 feet of foundations, individual lead concentrations exceeded 400 ppm at the pre-stabilization properties in 49 of 588 individual soil samples collected (8.3%), and exceeded 400 ppm in 2 of 357 soil samples collected (0.8%) from 6 to 10 feet from foundation walls.

Individual soil samples exceeding 400 ppm were collected at 11 of the 25 pre-stabilization properties sampled. Fourteen of the 25 pre-stabilization properties had no samples exceeding 400 ppm. Of the 11 pre-stabilization properties with individual samples exceeding 400 ppm, either one or two soil samples were above 400 ppm from BVIDs 2227, 3112, 23680, and 23974. Three or more soil samples exceeding 400 ppm were collected from the other 7 pre-stabilization properties with individual soil sampling results exceeding 400 ppm. The highest lead concentration detected in this group of 945 samples was 4,503 ppm and 11 samples contained lead concentrations greater than 1,000 ppm.

The average lead concentration within 6 feet of the foundation exceeded 400 ppm in 4 of the 50 transects in this group of properties. These 4 transects were located at 4 separate properties.

Table 5-3 Average Lead Concentrations in Soil Samples Collected from Properties Prior to Paint Stabilization

	All	Samples		amples Foundation	All Samples > 6 ft from Foundation					
	Average	# of Samples	Average	# of Samples	Average	# of Samples				
All Samples	113	945	148	588	51	357				
High LBP Deterioration	139	293	192	185	49	108				
Medium LBP Deterioration	79	271	98	167	48	104				
Low LBP Deterioration	116	381	156	236	51	145				

All lead concentrations are in mg/kg.

In each case where the average of the individual soil samples exceeded 400 ppm along a 0-6 foot transect, the average concentration along the second transect from the same property was less than 400 ppm. Since both transects represent only a portion of the same drip zone of the property, neither can be interpreted to reflect the actual average drip zone concentration. In soil samples collected from 6-10 feet from the foundation, the average lead concentrations were less than 400 ppm along both transects at all of the pre-stabilization properties.

A correlation was observed between the degree of LBP deterioration identified in the LBP assessments and soil lead levels found at pre-stabilization properties. As shown on Table 5-3, at pre-stabilization properties with the highest degree of LBP deterioration, the average soil lead concentration within 6 feet of the foundation was 192 ppm. The average soil lead concentrations within 6 feet of the foundation with a low or medium degree of LBP deterioration were 156 ppm and 98 ppm, respectively.

Pre-stabilization properties with a high degree of LBP deterioration also exhibited higher maximum concentrations relative to properties with a low or medium degree of LBP deterioration. The lead level in soil samples exceeding 400 ppm at properties with a high degree of LBP deterioration averaged 1,076 ppm. The lead level in soil samples exceeding 400 ppm collected at properties with a medium degree of LBP deterioration averaged 867 ppm. The lead level in soil samples exceeding 400 ppm collected from properties with a low degree of LBP deterioration averaged 854 ppm. In addition, the four individual samples with the highest lead concentrations were collected from pre-stabilization properties with a high degree of LBP deterioration.

The trend of higher soil lead concentrations found at properties with the highest degree of LBP deterioration was not observed in samples collected 6 to 10 feet from the foundation. For samples collected 6-10 feet from the foundation at pre-stabilization properties, those from properties with a high degree of LBP deterioration averaged 49 ppm, and samples collected from properties with a low or medium degree of LBP deterioration averaged 51 ppm and 48 ppm, respectively.

The presence of paint chips was not a reliable indicator of elevated soil-lead concentrations. Paint chips were generally observed in the drip zone at properties where elevated lead concentrations were detected in individual samples and at all of the properties where the average lead concentration in the soil exceeded 400 ppm. However, there were also paint chips observed in the drip zones at several properties that did not have elevated lead concentrations in individual sample results. In addition, there were no paint chips observed at two properties that contained elevated lead concentrations in individual sample results.

Site drainage or the presence or absence of gutters on the structure did not appear to be a factor as to whether there were elevated soil lead concentrations detected.

5.2 Properties Sampled Following Paint Stabilization

Presented in Table 5-4 are the individual soil lead concentrations measured in the samples collected from the 21 properties following completion of paint stabilization and HEPA vacuuming of exposed soil surfaces. The table presents the lead concentrations measured at 6-inch intervals from the foundation. The table also presents the averaged lead concentrations within 6 feet of the foundation (considered the drip zone width at the OLS) and the averaged lead concentrations from 6-10 feet from the foundation. The completed field sheets for these properties are presented in Appendix C.2

A total of 810 individual soil samples were collected at the 21 post-stabilization properties in this study. Table 5-5 presents the average lead concentrations and the total number of soil samples collected, the average lead concentrations and the number of soil samples collected within 6 feet of the foundation, and the average lead concentrations and the number of soil samples collected from 6 to 10 feet from the foundation of the home.

As shown in Table 5-5, the average lead concentration for all samples collected from the 21 post-stabilization properties was 73 ppm, which is significantly lower than the average concentration of 113 ppm for all samples collected from pre-stabilization properties. The average lead concentration for the 483 samples collected within 6 feet of the foundation from the post-stabilization properties was 95 ppm, compared to 148 ppm for this same set of samples collected at pre-stabilization properties. The average lead concentration in the 327 samples collected 6-10 feet from the foundation wall at the post-stabilization properties was 41 ppm, compared to 51 ppm in samples collected from pre-stabilization properties.

Of the 810 soil samples collected from post-stabilization properties, 21 samples (2.6%) had concentrations exceeding 400 ppm. The 21 soil samples that exceeded 400 ppm were all collected within 6 feet of the foundation. Soil lead concentrations in all samples collected from 6-10 feet of the foundation were less than 400 ppm. Overall, 21 of 810 individual samples (2.6%) collected at post-stabilization properties exceeded 400 ppm. Lead concentrations exceeded 400 ppm in 21 of 483 individual samples (4.3 percent) collected within 6 feet of foundations at the post-stabilization properties, and lead concentrations exceeding 400 ppm were not found in any of the soil samples collected from 6-10 feet from foundation walls.

Individual soil samples exceeding 400 ppm were collected at 10 of the 21 post-stabilization properties sampled. No post-stabilization property had more than 4 individual samples exceeding 400 ppm, and four properties had only a single sample exceeding 400 ppm. The highest lead concentration detected in this group of samples was 2,032 ppm and 5 samples contained lead concentrations greater than 1,000 ppm.

The average lead concentrations were less than 400 ppm along all transects collected from post-stabilization properties, both in the 0-6 foot and 6-10 foot intervals.

Table 5-4
Lead Concentrations in Soil Samples Collected from Properties Following Paint Stabililzation
Omaha Lead Site
Omaha, Nebraska

SAMPLE_AREA_ID	REMEDIATION	RATIO	DIRECTION	PAINT CHIPS	0 ft.	0.5 ft.	1.0 ft.	1.5 ft.	2.0 ft.	2.5 ft.	3.0 ft.	3.5 ft.	4.0 ft.	4.5 ft.	5.0 ft.	5.5 ft.	6.0 ft.	6.5 ft.	7.0 ft.	7.5 ft.	8.0 ft.	8.5 ft.	9.0 ft.	9.5 ft.	10.0 ft.	Avg Concentration	n Avg Concentration
	DATE			DETECTED																						w/in 6 ft. of	6 ft to 10 ft from
				IN DRIP ZONE																						Foundation	Foundation
10271	2005	Low	N								34	32	28	29	28	21	23	21	21	26	19	27	24	28	28	28	24
10271	2005	Low	S		32	76	26	29	21	27	42	39	165					50	145	24	27	24	20	21	25	51	42
16811	2006	Low	E									45	41	29	29	25	28	90	32	28	28	30	28	25	22	33	35
16811	2006	Low	W						180	65	57	67	60	121	53	94	49	43	101	136	54	27	54	30	61	83	63
24467	2004	Medium	E	YES	50	28	26	39	25	26	24	19	22	23	21	36	35	22	21	16	27	24	25	22	19	29	22
24467	2004	Medium	N	YES	113	79	55	39	54	34	41	30	34	23	18	26	28	29	22	28	47	20	29	17	23	44	27
25210	2005	High	E	YES	73	59	53	109	73	70	50	35	41	47	99	54	147	67	89	147	299	174	111	65	53	70	126
25210	2005	High	N	YES	73	73	67	45	50	64	69	176	603	863	170	114	95	87	60	37	53	54	66	92	85	189	67
27332	2005	High	Е	YES	1094	562	549	157	123	52	59	33	23	17	19	21	15	14	22	12	29	21	18	13	24	210	19
27332	2005	High	W	YES			175	157	48	53	32	35	23	26	21	22	23	21	23	17	16	21	17	22	20	56	20
27348	2006	Medium	E	YES	39	31	27	23	34	159	102	69	142	152	264	130	126	129	68	87	46	64	56	55	52	100	70
27348	2006	Medium	W	YES	87	19	25	26	19	23	28	185	524	763	689	245	407	60	55	32	22	28	32	31	29	234	36
28447	2005	Low	N	YES	22	24	28	27	41	44	34	25	26	36	32	40	33	33	19	18	30	26	21	19	28	32	24
28447	2005	Low	S	YES	22	43	48	54	54	72	71	104						336	78	47	46	29	51	29	25	59	80
29669	2005	Medium	Е	YES	50	45	69	151	22	29	22	30	33	23	30	26	38	25	52	18	26	28	38	31	28	44	31
29669	2005	Medium	S	YES	103	56	77	45	47	252				67	30	19	19	25	30	24	26	128	184	120	101	72	80
29876	2004	Low	Е	YES	2032	76	34	28	42	50	47	303				56	30	23	33	23	25	21	16	22	25	270	24
29876	2004	Low	N	YES	298	114	100	36	38	26	42	727	36	25	26	24	25	26	21	29	14	18	18	20	27	117	22
30049	2005	Low	Е	YES	71	56	117	58	147	101	82	104	47	33	51	38	33	36	32	33	37	22	34	34	55	72	35
30049	2005	Low	S	YES	860	176	76	92	39	25	29	43	33	23	26	42	23	29	24	26	35	27	26	24	21	114	27
30055	2006	Medium	N		80	65	61	29	35	30	29	31	33	28	29	32	26	24	22	23	38	29	29	22	23	39	26
30055	2006	Medium	W		43	55	40	25	26	26	38	38	37	26	35	34	24	49	179	267						34	165
30170	2005	High	E	YES	99	93	60	44	90	39	39	44	26	26	28	39	67	26	25	26	22	25	20	25	20	53	24
30170	2005	High	N	YES	354	27	32	47	37	46	34	32	26	43	29	31	25	30	24	33	23	29	25	24	26	59	27
30178	2005	High	Е	YES	48	36	28	46	96	55	35	47	23	24	40	20	24	27	20	25	25	24	58	21	28	40	29
30178	2005	High	S	YES							130	73	44	25	38	31	30	31	33	30	33	19	37	18	21	53	28
30327	2004	High	N	YES	155	39	38	63	36	52	35	23	22	18	27	30	21	23	25	31	19	17	22	20	19	43	22
30327	2004	High	W	YES	219	83	23	68	31	67	45	48	16	40	18	26	28	26	30	23	30	23	21	30	38	55	28
31060	2004	Medium	Е	YES									1445	386	46	46	38	35	28	30	37	32	24	25	25	392	30
31060	2004	Medium	S	YES	195	78	59	74	41	38	54	36	35	35	31	37	34	33	39	40	29	24	35	27	22	57	31
33212	2005	Medium	Е	YES	307	78	81	142	96	214	148	51	97	118	96	81	163	59	268	49	51	123	100	151	78	129	110
33212	2005	Medium	S	YES	259	131	161	95	113	477	329	62	80	44	35	33	39	48	45	48	38					143	45
33688	2005	Low	Е	YES	900	118	16	22	470	487	397	786					216	63	38	35	27	34	36	30	32	379	37
33688	2005	Low	N	YES	40	25	31	113	81	69	61	35	26	29	25	22	18	25	31	27	25	24	20	19	22	44	24
33775	2005	High	Е		640	127	123	135	215	231							272	54	49	36	44	41	33	23	29	249	39
33775	2005	High	W		32	31	30	36	29	41	33	41	24	51	23	27	24	22	22	21	28	125	27	23	23	32	36
33941	2005	Low	Е		73	26	25	19	21	18	23	15	31	29	22	27	25	21	20	22	21	18	20	20	27	27	21
33941	2005	Low	W		113	32	30	30	37	27	23	22	34	26	32	28	35	19	28	18	23	24	25	19	16	36	22
34823	2006	Low	S	YES	285	48	34	33	33	54	28	22	28	27	25	25	26	24	27	15	19	22	20	21	23	51	21
34823	2006	Low	W	YES	95	111	181	71	83	92	46	43	53	29	29	40	23	28	30	20	27	27	29	23	23	69	26
40663	2005	Medium	E	YES	119	1057	1810	332	17	24	29	50	221	179	130	73	52	188	205	155	189	166	84	31	23	315	130
40663	2005	Medium	S	YES		,,,,,				26	20	17	45	15	19	20	18	19	19	20	28	21	22	27	18	23	22
Distances are measured from					1			1				1															

Distances are measured from foundation of home

All lead concentrations are in mg/kg

Table 5-5 Average Lead Concentrations in Soil Samples Collected from Properties After Paint Stabilization

	All	Samples		amples Foundation	All Samples > 6 ft from Foundation					
	Average	# of Samples	Average	# of Samples	Average	# of Samples				
All Samples	73	810	95	483	41	327				
High LBP Deterioration	68	238	88	142	39	96				
Medium LBP Deterioration	88	269	109	166	54	103				
Low LBP Deterioration	65	303	89	175	33	128				

LBP concentrations are in mg/kg.

Soil lead concentrations at post-stabilization properties are of interest for comparison to pre-stabilization soil lead concentrations. This comparison provides an indication of the affect of HEPA vacuuming of exposed soil surfaces on soil lead concentrations following LBP stabilization. Because HEPA vacuuming is performed to reduce soil lead concentrations that may exist prior to LBP stabilization, any correlation between post-stabilization soil lead concentrations and associated factors such as the severity of LBP deterioration is likely reduced or altered. Soil lead concentrations at post-stabilization properties have been evaluated against these potential factors, but their impact on soil lead concentrations following HEPA vacuuming is expected to be substantially diminished.

Following LBP stabilization and HEPA vacuuming of exposed surface soils, correlation was not apparent between soil lead levels and the degree of LBP deterioration measured prior to stabilization. Individual soil samples exceeding 400 ppm were collected from the three groups of post-remediation properties that had a high, medium, and low degree of LBP deterioration. Individual soil lead concentrations above 400 ppm were detected at three properties with a high degree of LBP deterioration, 4 properties with a medium degree of LBP deterioration, and 3 properties with a low degree of LBP deterioration. The highest soil lead concentration of 2,032 ppm was detected at a property with a low degree of LBP deterioration.

As shown on Table 5-5, overall average soil lead concentrations at post-stabilization properties with a high, medium and low degree of LBP deterioration were 68 ppm, 88 ppm, and 65 ppm, respectively. Within 0-6 feet of the foundation, soil lead levels averaged 88, 109, and 89 ppm at properties with a high, medium, and low degree of LBP deterioration, respectively. At distances from 6-10 feet of the foundation, soil lead levels averaged 39, 54, and 33 ppm at properties with a high, medium, and low degree of LBP deterioration, respectively.

Paint chips were observed in the drip zone at properties where elevated lead concentrations were detected. However, there were also paint chips observed in the drip zones at several properties that did not have elevated soil lead concentrations. In addition, there were no paint chips observed at one property where an elevated soil lead concentration was identified. The presence of paint chips did not appear to be a reliable indicator of elevated soil lead levels.

Site drainage or the presence or absence of gutters on the home also did not appear to correlate with elevated soil lead concentrations in the drip zone at post-stabilization properties.

6.0 Summary and Conclusions

An objective of the LBP Recontamination Study was to determine the potential for deteriorating LBP to elevate soil lead concentrations in the drip zone areas of homes where surface soils were previously remediated. The study concludes that elevated soil lead concentrations were detected in a number of individual soil samples collected near foundations of structures with varying degrees of deteriorating exterior LBP, indicating the potential for deteriorating LBP to fall to the ground and increase soil lead levels at previously remediated properties.

Although the soil samples collected during this study were not collected for the purpose of characterizing risk levels, comparison to a 400 ppm soil screening level is presented to provide a point of reference for elevated lead levels in residential soils. Individual or average soil lead levels exceeding 400 ppm in this study do not suggest that a certain level of risk may exist, or that response action is warranted. Rather, this level is used as a benchmark of whether an elevation in soil lead concentrations is occurring following soil remediation. An elevation in soil lead levels following soil remediation due to the presence of deteriorating LBP is an indication that additional measures such as exterior LBP stabilization may be warranted to protect the continued effectiveness of the soil remedy.

Soil lead levels were measured at one group of 25 properties prior to LBP stabilization and another group of 21 properties following completion of LBP stabilization. HEPA vacuuming of exposed surface soils is conducted during the LBP stabilization process to remove visible paint chips from exposed surface soils.

The overall average concentration of all samples collected at pre-stabilization properties was 113 ppm, compared to an overall average concentration of all post-stabilization samples of 73 ppm. All pre-stabilization drip zone samples averaged 148 ppm, compared to a post-stabilization drip zone sample average of 95 ppm. Samples collected from 6-10 feet from the foundation averaged 51 ppm at pre-stabilization properties and 41 ppm at post-stabilization properties.

Soil samples collected within 6 feet of the foundation at pre-stabilization properties exceeded 400 ppm at 11 of 25 properties in 49 of 588 (8.3%) individual soil samples. Soil samples collected at a distance of 6-10 feet from the foundation at pre-stabilization properties exceeded 400 ppm at two properties in 2 of 357 (0.6%) individual soil samples. Following LBP stabilization and HEPA vacuuming of exposed surface soils, the incidence and magnitude of elevated soil lead levels was greatly reduced. Soil samples collected within 6 feet of the foundation at post-stabilization properties exceeded 400 ppm at 10 of 21 properties in 21 of 483 (4.3%) individual soil samples. Following LBP stabilization none of the 327 samples collected from 6-10 feet from the foundation exceeded 400 ppm.

Average soil lead concentrations along transects generally remained below 400 ppm, except in four instances at pre-stabilization properties when a single transect average exceeded 400 ppm. In each case, the average soil lead concentration along the accompanying transect at the same property remained less than 400 ppm. The average soil lead concentration within 6 feet of the foundation at all post-stabilization properties was less than 400 ppm. Average soil lead levels at distances from 6-10 feet of the foundation was less than 400 ppm at all pre-stabilization and post-stabilization properties.

The data collected during this study indicated that at least one individual soil sample contained an elevated lead concentration in 17 of the 50 pre-stabilization transects (11 of the 25 properties). At least one individual soil sample contained an elevated lead concentration in 11 of the 42 post-stabilization transects. (10 of 21 properties). The individual sample results along each transect were highly variable. None of the transects showed a consistent pattern of individual sample results exceeding 400 ppm.

The data indicate that the majority of the elevated lead concentrations were confined to the area within 6 feet of the foundation of the home. The data also indicate that soil lead concentrations were lower and less frequent at properties sampled following paint stabilization and HEPA vacuuming of exposed soils to remove visible paint chips.

Correlation was observed between the degree of LBP deterioration and soil lead concentrations at pre-stabilization properties. Elevated soil lead concentrations were the highest and most consistent at properties with a high degree of LBP deterioration. This same correlation was not observed at post-stabilization properties following HEPA vacuuming of exposed surface soils.

The length of time passed since soil remediation occurred had no apparent effect on the soil lead levels observed at pre- or post-stabilization properties sampled in this study. Site drainage and the presence or absence of gutters also did not appear to influence lead concentrations measured in the soil.

This Recontamination Study characterized soil lead concentrations at 46 of the more than 45,000 properties within the final focus area of the OLS. Due to the relatively small sample size, the conditions found at the properties during this study, either individually or collectively, should not be considered representative of general conditions that may exist at other properties across the site. Nevertheless, certain general observations can be made in consideration of the limited data set generated in this study:

1. Elevated soil lead levels were measured in soils near foundations of structures following soil remediation at properties with deteriorating lead-based paint present on exterior surfaces.

- 2. A correlation was observed between the degree of deteriorated lead-based paint documented during previous assessments and elevated soil lead levels identified near foundation walls during this study.
- 3. The presence or absence of visible paint chips is not a reliable indicator of the presence of elevated soil lead levels at properties sampled in this study.
- 4. Both the magnitude and frequency of elevated soil lead concentrations detected in this study are generally lower at properties following lead-based paint stabilization and HEPA vacuuming of surface soils.
- 5. Although the soil sampling protocol was not designed for the purpose of characterizing risk, conditions at post-stabilization properties do not suggest a need for additional response action to address elevated soil lead levels.

7.0 References

BVSPC 2007. Final Remedial Design Quality Assurance Project Plan, Omaha Lead Site, February 1, 2007.

BVSPC 2005. Drip Zone (DZ) Width Determination Study Field Sampling Protocol, December 14, 2005.

EPA 2003. United States Environmental Protection Agency, <u>Superfund Lead-Contaminated Residential Sites Handbook</u>, OSWER 9285.7-50, August 2003.

Appendix A LBP Assessment Soil Mixing Calculations

Appendix A LBP Assessment Soil Mixing Calculations

The LBP Calculation Sheet (See Figure 2-1) is prepared using information recorded on the LBP assessment field sheet. The LBP Calculation Sheets will be used by EPA to assess the potential for elevated soil lead levels to develop in remediated drip zones due to the presence of deteriorating LBP. The LBP Calculation Sheet used in this analysis is based on the risk-management assumption that all deteriorating LBP falls in a 6-foot wide area surrounding the structure and is uniformly mixed in soil to a depth of one inch. These assumptions are subject to evaluation and modification, and are not intended to establish a basis for EPA decision-making.

In order to complete the calculation, LBP Assessment Field Sheet measurements are converted to metric system units (meters and kilograms). The conversion factors are shown on the LBP Calculation Sheet and are described below. Figure 2-1 is an example LBP Calculation Sheet for a property where the resulting increase in lead concentration would exceed 400 ppm under the stated mixing assumptions. The numbered steps in the LBP Calculation Sheet are explained in the following paragraphs.

Step 1 -- Building Perimeter

The Building Perimeter is the distance around the footprint of the structure, as recorded on the LBP Assessment Field Sheet site sketch.

Step 2 – Calculation of Impacted Soil Area

For purposes of this calculation, the impacted soil area is defined as a 6-foot wide strip of soil surrounding the structure. The impacted soil area includes the Building Perimeter multiplied by 6 feet (ft). This calculation also accounts for corner areas which consist of square areas that are six (6) feet per side. The area of each square is 6 ft x 6 ft = 36 square feet (ft²). The "Impacted Soil Corner Area" for a typical structure adds 144 ft² (4 corners x 36 ft²) to the total impacted soil area. Adding both numbers (Impacted soil area + Impacted soil corner area) gives "Total Impacted Soil Area" in square feet.

Step 3 – Calculation of Impacted Soil Mass

To calculate the mass of impacted soil, the Impacted Soil Volume is first determined using the assumption that all of the identified deteriorating LBP is mixed into the top one inch of soil. One inch equals 1/12 foot = 0.0833 ft. The Impacted Soil Volume is Total Impacted Soil Area in ft² (from step 2) multiplied by 0.0833 ft (area times depth). This Impacted Soil Volume is in cubic feet (ft³), and is converted to cubic centimeters, as shown on the LBP Calculation Sheet.

The Impacted Soil Volume is then converted to Mass of Impacted Soil by multiplying the estimated bulk density of Omaha area surface soils (1.6 grams per cubic centimeter – g/cm³) by the volume of soil (Impacted Soil Volume), then converting this number to kilograms (1,000 grams = 1 kilogram [kg]).

Step 4 – Calculation of Lead Mass in Impacted Soil that will Result in Soil Lead Concentration of 400 ppm

The lead mass in impacted soil that will result in soil lead concentrations of 400 ppm is calculated by multiplying the Mass of Impacted Soil (in kilograms from Step 3) by the 400 ppm screening level¹. The resulting product (in milligrams) is converted to kilograms by multiplying by 1,000,000.

In the Example Lead Based Paint Calculation Sheet (Figure 2-1), the lead mass in impacted soil that will result in soil lead concentration of 400 ppm equals 1.69 kg. This amount of lead in drip zone soils would result in an increased concentration of 400 ppm if dispersed uniformly throughout the Impacted Soil Volume.

Step 5 – Tabulation of Potential Lead Contamination

The potential lead contamination for each group of similarly-painted surfaces is calculated in Step 5, using information from the LBP Assessment Field Sheet. The potential lead contamination for each group of similarly-painted surfaces is then added together to determine the total amount of lead present in deteriorated painted surfaces on the structure. The total amount of potential lead contamination is the amount of lead that could potentially fall onto the ground and mix with impacted soils for that particular structure. Following is a brief explanation of each column heading in Part 5 of the LBP Calculation Sheet:

- Sample # Identifies the paint sample analyzed using the hand-held XRF unit.
- **Structure Feature** The type of structure or feature where the deteriorated paint sample was analyzed.
- Lead Loading (mg/cm²) The amount of lead detected in mg/cm² using the handheld XRF detector.
- **Deteriorated Area (ft²)** The total area in square feet (ft²) of the deteriorated paint on the structure for each type of similarly-painted surface.
- **Deteriorated Area** (cm²) Conversion to square centimeters. The conversion factor is 929.03 cm² per ft².
- Lead (mg) The total amount of lead in each deteriorated area on the structure. This is calculated by multiplying Lead Loading (mg/cm²) by Deteriorated Area (cm²).
- **Lead (kg)** Conversion to kilograms (kg). The conversion factor is 1,000,000 mg per kg.

¹ Parts per million (ppm) are mathematically equivalent to milligrams per kilogram (mg/kg)

Step 6 – Comparison of Potential Lead Contamination to Lead Mass in Impacted Soil that will Result in Soil Lead Concentration of 400 ppm

If the total amount of potential lead contamination (from Step 5) is greater than the lead mass in impacted soil that will result in a soil lead concentration of 400 ppm (from Step 4), the deteriorated paint on the structure could potentially fall to the ground, mix with impacted soils, and result in increased lead concentrations exceeding 400 ppm under the stated mixing assumptions.

Step 7 – Contamination Potential, Highest to Lowest

This table includes the same information presented in Step 5 for those surfaces that are determined to contribute to the potential lead content in deteriorated paint on the structure. In this tabulation, lead-painted surfaces are arranged from the highest amount of potential lead content to lowest. The purpose of including this information is to simply identify the surfaces where deteriorating LBP poses the greatest threat to the continued effectiveness of the remedy.

Appendix B
Field Sampling Protocol For LBP Recontamination Study

Field Sampling Protocols for Lead-Based Paint (LBP) Recontamination Study

Omaha Lead Site (OLS)

Introduction:

This document presents BVSPC's field sampling protocols for the LBP Recontamination Study at the OLS.

Sampling Protocols:

- Sampling Teams shall evaluate whether the property is a suitable candidate for drip zone sampling. The suitability criteria are as follows: At least two drip zone samples to 10 feet from the foundation are possible on adjacent sides of the dwelling. Walkways or driveways that occupy not more than 2- 3 feet of the 10foot area are not a problem.
- Approximately 63 residences will be included in the study. The homes must have painted sidings. Homes with brick or other permanent or factory finished sidings will not be sampled.
- Soil samples shall be collected at 6-inch interval from the foundation to a maximum of 10-feet. Sample collection methods will match existing OLS residential soil sampling procedures (See Reference 3) and the sampling procedures described in the Drip Zone (DZ) Width Determination Study Field Sampling Protocols (See Reference 4). Samples will consist of 3 aliquots, 0 1" depth, located within one foot of the tape measure: Sampling team shall diagram or describe aliquot locations.
- Visible paint chips lying on the surface of the soil will not be collected with the soil sample or mixed with the soil sample. Visible paint chips are not a component of the soil. Mixing of paint chips with the soil sample would not provide information as to whether deteriorated paint particles have resulted in elevated soil lead concentrations; it would only indicate whether the paint chips contained lead.
- Labeling: Sample identification shall be as follows: Sample labeling: RSDZ ##
 N (S, E, W) BVID#. N, S, E, W refers to exterior wall orientation.
- Decontamination procedures will match those currently being used. Dry, decontaminated spoons or trowels will be used to collect every soil sample. New nitrile gloves will be donned at each new sampling location.
- Soil sample XRF Analyses will be completed at the BVSPC Project Office, in Omaha. Current soil sample preparation and XRF office screening and QA/QC procedures will be followed. Samples will be sieved using a No. 10 sieve. Office screening analyses will be conducted using an Innovex XRF unit.
- The sampling team will record the following information on the Recontamination Study Field Sheet:
 - a. Site grading and drainage (positive [away from structure] or negative).

- b. Number of stories, roof overhang (measured if possible) and distance from ground to soffit.
- c. Presence of gutters, location of downspouts and drainage swales.
- d. Exterior finish.
- e. Paint condition and XRF results.
- f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc.
- g. DZ sample locations and wall orientation (N, S, E, W).
- h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken.
- i. Other observations that could impact the potential for elevated soil lead concentrations in drip zones to develop.

Quality Control:

- Quality Control and Quality Assurance procedures in the February 1, 2007 BVSPC Quality Assurance Project Plan will be implemented.
- Laboratory confirmation testing will be conducted at a rate of 5%: One QC sample per 20 samples collected and analyzed using the office screening XRF will be submitted to the EPA Region 7 laboratory for analysis. QC samples will be labeled as follows: RSDZ-##-N(S, E, or W)L-BVID#
- Recommended manufacturer XRF instrument calibration procedures will be followed.

References:

- 1. United States Environmental Protection Agency, <u>Superfund Lead-Contaminated</u> <u>Residential Sites Handbook</u>, OSWER 9285.7-50, August 2003.
- 2. BVSPC 2007. Final Remedial Design Quality Assurance Project Plan, Omaha Lead Site, February 1, 2007.
- Remedial Design Field Sampling Plan, Omaha Lead Site, Omaha, Nebraska, EPA Contract No. EP-S7-05-06, EPA Task Order No. 0091. Prepared by Black & Veatch Special Projects Corporation (BVSPC), December 7, 2006.
- 4. BVSPC 2005. Drip Zone (DZ) Width Determination Study Field Sampling Protocol, December 14, 2005.

Appendix C
Completed Field Sheets

Appendix C.1
Completed Field Sheets for Properties Sampled Prior to Paint Stabilization

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In Situ Samp	ples Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:	_	7 -02 .	O Book: 218 08 Time: Pm	ASR: Samples:		
Ryrscpar ·3099:	216		_	RYC 56 PXA . 3099:	238		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- E -3099		_178_		RDZ01- S -3099		50	
RDZ02- € -3099		130		RDZ02- S -3099		41	
RDZ03- & -3099		99		RDZ03- S -3099		127	
RDZ04- £ -3099		94		RDZ04- \$ -3099		23	
RDZ05- £ -3099		74_		RDZ05- \$ -3099		29	
RDZ06- ₹ -3099		83		RDZ06- \$ -3099		26	
RDZ07- € -3099		<u>43</u>		RDZ07- \$ -3099		_24_	
RDZ08- £ -3099		_67_		RDZ08- \$ -3099		<u>83</u>	
RDZ09- £ -3099		<u>47</u>		RDZ09-S -3099		217	
RDZ10- E -3099		<u>57</u>		RDZ10-\$ -3099		_70	
RDZ11- E -3099		46		RDZ11-\$ -3099		308	
RDZ12- £ -3099		32		RDZ12- \$ -3099		346	
RDZ13- £ -3099		<u>53</u>		RDZ13-S -3099		257	
RDZ14- £ -3099		47		RDZ14- \$ -3099		204	
RDZ15- E -3099		_51_		RDZ15- \$ -3099		_135_	
RDZ16- E -3099		_60_		RDZ16- \$ -3099		_139	Ø
RDZ17- £ -3099		72_		RDZ17-\$ -3099		90	
RDZ18- E -3099		48		RDZ18-\$ -3099		81	
RDZ19- E -3099 RDZ-20- E -3099 RDZ21- E -3099		<u>58</u> 48 54		RDZ19- \$ -3099 RDZ20-\$ 3099 RDZ21-\$ -3099		98 100 89	
# of Samples:				# of Samples:			



Sampled Address: 1522 S 33 ST Phone:		Exterior Paint Good Poor Not paint	North Arrow
Presence of gutters, location of downspot Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation. DZ sample locations and wall orientation. Digital photos will be taken at each DZ sa	red if possible) and distance from ground to soffit. uts and drainage swales. on, mulch, bare ground, visible paint chips, etc.	nes to develop.	
	<i>e</i>	Do	WNSpout TYP)
*	(BI)	8	
	1522S.33ST		
	(FI)		
A. NECATIVE	S. 33St		
B. 2 Story 25'-2' C. YES D. PAINTED			
E. Good F. E-GRASS - S. GRASS G. EAST - South H.YES			
I. AGE			
			:

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			Ш	Ш

In Situ Samp	In Situ Samples Analyzed Ex Situ Samples		ples Analyzed Lab Samples Analyzed				
XRF Unit: Date: Staff:	Time:	Date:	<u>B·25</u>	Book: <u>218</u> -08Time: <u>Am</u>	ASR: Samples:	Date:	
RYASCPXA-3112	22	_		Overhang:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- § -3112	· · · · · · · · · · · · · · · · · · ·	727		RDZ01- W -3112		237	
RDZ02-\$ -3112		_373_		RDZ02-₩ -3112		502	
RDZ03- <i>\$</i> -3112		166		RDZ03- √ -3112		_349_	
RDZ04-\$ -3112		135		RDZ04- W -3112		167	
RDZ05- \$ -3112		84		RDZ05- W -3112		162	
RDZ06- \$ -3112		97		RDZ06- W -3112		148	
RDZ07-\$ -3112		76		RDZ07- W -3112		104	
RDZ08- \$ -3112		81		RDZ08- W -3112		207	
RDZ09- \$ -3112		113		RDZ09- W -3112		67_	
RDZ10- \$ -3112		122		RDZ10- W -3112		<u>48</u>	
RDZ11-\$ -3112		102		RDZ11-₩ -3112		89	
RDZ12- 3 -3112		162		RDZ12- W -3112		<u> 48</u>	囡
RDZ13- \$ -3112		126	Ø j	RDZ13-W -3112		39_	
RDZ14- S -3112		146		RDZ14- W -3112		38_	
RDZ15-S -3112		93	اً 🗖	RDZ15-W -3112		26	
RDZ16-5 -3112				RDZ16-₩ -3112		34	
RDZ17-\$ -3112		_58_		RDZ17- W -3112		20	,
RDZ18-S -3112		46		RDZ18-₩ -3112		26	
RDZ19-\$ -3112		47	<u></u>	RDZ19- W -3112		22	
RDZ20-\$ -3112		51_		RDZ20-W -3112		26	
# of Samples:				# of Samples:			
Day BC 1						04420	1.01.23



Sampled Address: 4322 FRANKLIN Phone:	Oile Okelon	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from b. Number of stories, roof overhang (measured in c. Presence of gutters, location of downspouts and d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, rog. DZ sample locations and wall orientation (N, S). h. Digital photos will be taken at each DZ sampling in Other observations that could impact the poter	if possible) and distance from ground to soffit. Ind drainage swales. nulch, bare ground, visible paint chips, etc. S, E, W).	to develop.	
		Danklopaut	
		DOWNSPOUT (TYP)	
91/21 (F1)	4322 FRANKLIN St		
A Positive B. 2 Story 25'-3' C. YES	91/2' (FI)		
D. PAINT E. Poor F. S. Grass - W-Grass G. South - WEST H. VES	FRANKLIN ST		
I. Gutter Missing			046141.0123



In Situ Samp	In Situ Samples Analyzed Ex Situ Samples Analyzed			ples Analyzed	Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:	Date: <u>8</u>	XRF Unit: 6540 Book: 218 Date: 8 28:08 Time: An Staff: MSW		ASR: Samples:	Date:	
RYBSCPXA-2227:	2.3			RYASCPXA -2227 :	214	_	
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -2227		390		RDZ01- € -2227		610	
RDZ02- N -2227		204		RDZ02- £ -2227			
RDZ03- N -2227		148		RDZ03- £ -2227		104	
RDZ04- N -2227		237		RDZ04- E -2227		156	
RDZ05- N -2227		101		RDZ05- £ -2227	WALK		
RDZ06- N -2227				RDZ06-Æ -2227	WALK		
RDZ07- N -2227		_110_		RDZ07-E -2227	WALK		
RDZ08- N -2227		80_		RDZ08-E -2227	WALK		
RDZ09- N -2227		_80_		RDZ09-E -2227	WALK		
RDZ10- N -2227		92		RDZ10-E -2227		_347_	
RDZ11- N -2227		86		RDZ11- E -2227		<u> </u>	
RDZ12- N -2227				RDZ12- E -2227		68_	
RDZ13- N -2227		72_		RDZ13- E -2227		37_	
RDZ14- N -2227		107		RDZ14- E -2227		43	
RDZ15- N -2227		50_	IJ,	RDZ15- E -2227		44	
RDZ16- N -2227		40		RDZ16- E -2227		<u>88</u>	
RDZ17- № -2227		34		RDZ17- E -2227		_50_	
RDZ18- N -2227		<u> 33</u>		RDZ18- E -2227		42	
RDZ19- N -2227 RDZ20-N-2227		<u>27</u> 30		RDZ19- £ -2227 * RDZ20- E - Z227		<u>59</u> 124	
RDZ21- N -2227		30		RDZ21-E -2227		454	回回
# of Samples:				# of Samples:			-
N -21 Rev RS-1				£.71		044701	01.23



Sampled Address: 3109 PACIF Phone:		1	
 Presence of gutters, location of downsp. Exterior finish. Paint condition and XRF results. DZ features such as presence of vegeta. DZ sample locations and wall orientation. Digital photos will be taken at each DZ seep. 	ured if possible) and distance from ground to outs and drainage swales. ion, mulch, bare ground, visible paint chips, e	itc.	
: : : :			
8		DOWNSPO (TYP)	ut
			Positive
		B. c.	3 Story 30'- 3' VES Paint
	3109 Pacific St	E.	ProR
		6.	N Grass E-Grass North — East YES
MALK , a. I			Paint Chip Acound Found
(FI)			
			:
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	Duras Ol		·······
	Pacific St		
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In Situ Samples Analyzed Ex Situ Samp		mples Analyzed Lab Samples Analyze		oles Analyzed			
XRF Unit: Date: Staff:	Time:	Date: <u></u>	XRF Unit: <u>6.540</u> Book: <u>218</u> Date: <u>8 - 24 - 08</u> Time: <u>Pm</u> Staff: <u>MSW</u>		ASR: Samples:		
RYB51.PMA - 25787.	22						
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- S -25287		1302		∫ RDZ01- E -25287		1653	
RDZ02- S -25287		945		RDZ02- £ -25287		110	
RDZ03-\$ -25287		<u>677</u>		RDZ03- £ -25287		89_	
RDZ04- \$ -25287		<u> 630</u>		RDZ04-£ -25287		132	
RDZ05-\$ -25287		<u>572</u>		RDZ05-E -25287		231	
RDZ06-\$ -25287		356		RDZ06- E -25287		420	
RDZ07-\$ -25287		429		RDZ07- E -25287		339	
RDZ08-\$ -25287		188_		RDZ08-E -25287		250	
RDZ09- S -25287		<u> 385</u>		RDZ09- E -25287		125	囡
RDZ10-\$ -25287		307		RDZ10- E -25287		103	
RDZ11- S -25287		183	d	RDZ11- E -25287		60	
RDZ12-\$ -25287		133		RDZ12- E -25287		<u> 57</u>	
RDZ13-\$ -25287		118		RDZ13- E -25287		53	
RDZ14- S -25287		8_		RDZ14- E -25287		58_	
RDZ15-\$ -25287		<u> </u>		RDZ15- E -25287		67	
RDZ16-\$ -25287		90	<u></u> כ	RDZ16- <i>E</i> -25287		84	
RDZ17-\$ -25287		60	<u></u>	RDZ17- E -25287		81	
RDZ18- S -25287		60	<u></u>	RDZ18- E -25287		38	
RDZ19- \$ -25287		53_		RDZ19- E -25287		40	
RDZ20-\$ -25287		<u>75</u>		⁴ RDZ20- E -25287		24	
# of Samples:				# of Samples:			
)3-I3						04470)	1 01 23



Sampled Address Phone:	: 3102 LAFAYETTE AV	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
b. Number of stories, roof of	ition of downspouts and drainage	and distance from ground to soffit.	· · · · · · · · · · · · · · · · · · ·	.,
f. DZ features such as pres g. DZ sample locations and h. Digital photos will be tak	ence of vegetation, mulch, bare of I wall orientation (N, S, E, W). en at each DZ sampling location.	ground, visible paint chips, etc. Additional photos may be taken. ated soil lead concentrations in drip zone	s to develop.	
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,		<u>O</u> :; /	DOWNSPOUT (TYP)	
· · · · · · · · · · · · · · · · · · ·	: ;		CITES	:
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		.;	<u>:</u>	* * * * * * * * * * * * * * * * * * * *
	21001.	Carrelt- Are	:	
<u> </u>	JUL LA	Payette Av		•
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A.S-NEGATIVE	E-Pasitive		.,	*
B. 2 Story 20'-	. 2'	, , , , , , , , , , , , , , , , , , ,	•	
C. VES '	LA	favetle AV		
E. POOR	,			:
F. S. GRASS .	E-Grass		,	
G. South - EA				•
H YES	; ;			
I. PAINT Chip	s Around Foundation			
	*	· · · · · · · · · · · · · · · · · · ·		
		eg e e e e e, e e e e e, e e e e e e e e	•	
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03-L-3				046141 01

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In Situ Sam	ples Analyzed	Ex Si	tu Samı	oles Analyzed	Lab Samp	oles Analyzed	$\overline{}$
XRF Unit:		_ _		D Book: 218	ASR:		
Date:	Time:	Staff: <u>6</u>	_	<u>08</u> Time: <u>Rm</u>	Samples:		_
RYBSCPX A-2322:	19			Overhang:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- 5 -2322		321		RDZ01- £ -2322		24	
RDZ02- 5 -2322		82_		RDZ02- £ -2322		23	
RDZ03- 5 -2322		103		RDZ03- £ -2322		_30_	
RDZ04- 9 -2322		126		RDZ04- £ -2322		64	
RDZ05- 5 -2322		78_		RDZ05- £ -2322		18	
RDZ06- 5 -2322		62		RDZ06- £ -2322			
RDZ07- 5 -2322		_57		RDZ07- £ -2322		21	
RDZ08- 5 -2322		47		RDZ08- £ -2322		18	
RDZ09- 5 -2322		43_		RDZ09- £ -2322		28	
RDZ10- 5 -2322		42		RDZ10- £ -2322		20	
RDZ11- 5 -2322		30		RDZ11- £ -2322		14	
RDZ12- \$ -2322		32		RDZ12- £ -2322			
RDZ13- 5 -2322		33		RDZ13- <i>E</i> -2322		20	র্ত্র
RDZ14- 5 -2322		25	\square	RDZ14- € -2322		26	
RDZ15- 5 -2322		26		RDZ15- <i>E</i> -2322		24	
RDZ16- \$ -2322		34_		RDZ16- € -2322		21	
RDZ17- 5 -2322		<u> 38</u>		RDZ17- E -2322		21	
RDZ18- 5 -2322		48		RDZ18- \$ -2322		_24_	
RDZ19-5 -2322		40_		RDZ19- E -2322		16	
RDZ20- 5 -2322		41		RDZ20- £ -2322			
# of Samples:				# of Samples:			
Rev RS-1						044701	i 01 23



Sampled Address: 4308 CAMDEN AV Phone: Site Sketc	
a. Site grading and drainage (positive [away from structure] or negative). b. Number of stories, roof overhang (measured if possible) and distance from ground for c. Presence of gutters, location of downspouts and drainage swales. d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. Additional photos may be to other observations that could impact the potential for elevated soil lead concentration.	etc.
	DOWNSPOUT (TYP)
	(TYP)
ljjjjj	<u> </u>
kiiiiiiii	
4308 CANDEN AV	
	9/2
	(FZ)
A Positive	
B. 2 Stopy 30-2'	
C. VES	
D. Paint	
E. POOR F. S. GRASS E. GRASS	2
A O W - Chart	
G. South - EAST H. VES CAMDEN AV	<u> </u>
I. PAINT Chip AROUND FOUNDATION	
	· ·

Omaha Lead Site Drip Zone Recontamination Study 23648



In Situ Samp	oles Analyzed	Ex Si	tu Samı	oles Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:		-21-	O Book: <u>218</u> 08 Time: <u>Am</u>	ASR: Samples:	Date:	
RYDSCPXA-2364	s: 20			RYCSCPXA-2364	8: 20		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead	LAB
RDZ01- E -23648		_58_		RDZ01- 🖊 -23648		79	
RDZ02- € -23648		_32_		RDZ02- √ -23648		_28_	
RDZ03- € -23648		_20_		RDZ03- № -23648		_27_	
RDZ04- £ -23648		21		RDZ04- N -23648		23	
RDZ05- E -23648		21		RDZ05- √ -23648		_3 <i>5</i>	
RDZ06- € -23648		20_		RDZ06- √ -23648		_31_	
RDZ07- € -23648		27_		RDZ07- № - 23648		2 L	
RDZ08- € -23648		_30_		RDZ08- √ -23648		21	
RDZ09- £ -23648		29		RDZ09- № -23648		23_	
RDZ10- <i>E</i> -23648		_32_		RDZ10- 1 -23648		_22_	
RDZ11- <i>E</i> -23648		_28_		RDZ11- N -23648		61	
RDZ12- E -23648		23		RDZ12- № -23648		15	
RDZ13- <i>E</i> -23648		2		RDZ13- № -23648		16	
RDZ14- E -23648		_ 2 4_		RDZ14- N -23648		_20_	
RDZ15- E -23648		32	I	RDZ15- N -23648		_22_	\mathbf{Z}
RDZ16- € -23648		34_		RDZ16- № -23648		23	
RDZ17- £ -23648		26		RDZ17- N -23648		25	
RDZ18- £ -23648		_34_		RDZ18- № -23648		19	
RDZ19- E -23648		28		RDZ19- N -23648		22	
RDZ20- 💪 -23648		28		RDZ20- N -23648		25	
# of Samples:				# of Samples:			
Pev PS-1						044701	01.22



Sampled Address: 3152 CHICAGO ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from structure Number of stories, roof overhand (measured if possible) Presence of gutters, location of downspouts and drainag Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bare DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling location Other observations that could impact the potential for ele	and distance from ground to soffit, ge swales. ground, visible paint chips, etc.		
	<u>:</u> : : :		:
		DOWNSpout (TYP)	
91/2 (BI)		91/2 (BZ)	; '
	52 Chicago St		
A. Positive			
B. 3 Shoey 30'-3' C. YES D. PAINT E. POOR	ChicagoSt		
F E Grass N-Grass G East – North H YES I None	Unicagost.		
RS-1			

In Situ Samp	les Analyzed	Ex Sit	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:		7 - 08	O Book: 218 -08 Time: Am	ASR: Samples:		
RYASCPXR -25002.	31			RYCSCPXA - 25002	55		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-W -25002		791		RDZ01- E -25002		95	
RDZ02-W -25002		886		RDZ02- E -25002		47	
RDZ03-W -25002		446		RDZ03- <i>E</i> -25002		_66_	
RDZ04- W -25002		308		RDZ04- £ -25002		14	
RDZ05- W -25002		166		RDZ05- £ -25002		<u>57</u>	
RDZ06-₩ -25002		100		RDZ06- £ -25002		<u> 330</u>	
RDZ07- W -25002		244		RDZ07- £ -25002		418	
RDZ08-₩ -25002		81_		 RPZ08-		812	
RDZ09- W -25002		64		 RDZ09-		433	
RDZ10-W -25002		72		 RDZ10-E -25002		<u> 588</u>	
RDZ11- W -25002		63		RDZ11- £ -25002		297	
RDZ12-W -25002		37		RDZ12-Æ -25002		_114_	
RDZ13-W -25002		29		RDZ13- E -25002		343	
RDZ14-W -25002		42		RDZ14- E -25002		104	
RDZ15- W -25002		46		RDZ15- £ -25002		381	
RDZ16-W -25002		71		RDZ16- £ -25002		434	T
RDZ17-W -25002		52_		RDZ17-Æ -25002		169	
RDZ18-W -25002		63		RDZ18- É -25002		32_	
RDZ19-W -25002 RDZ20-W-25002 RDZ21-W-25002		30 34 24		RDZ19- E-25002 RDZ20-E-25002 RDZ21-E-25002	2.	54 47 57	
# of Samples:				# of Samples:			



Sampled Address: 1111 N 36 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Pocr Not paint	North Arrow
Site grading and drainage (positive [away from structure Number of stories, roof overhand (measured if possible Presence of gutters, location of downspouts and draina Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bar DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling location of the potential for electrons.	e) and distance from ground fo soffit. ge swales. ge ground, visible paint chips, etc.		
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		<u> </u>	
	(B-1)		:
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		DOWNSPO (TYP)	out:
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		4}	
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A. Positive	<u>.</u>	<u> </u>	<i>:</i> :
B. 3 Story 30'-3' 2 C. YES	5	,	:
D. PAINT			·:·
E POOR	31 C+		:
F. WEST-Mulch-EAST-GRASS G WEST-EAST	<u> </u>	<u> </u>	
C TRUIT MITTER			
H. YES			;
H. YES I. PAINT Chips Around Found Ation			; ;
H. YES			

Omaha Lead Site Drip Zone Recontamination Study

In Situ Samp	les Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	_	3 - 25 - 6	Book: 218 28 Time: Am	ASR: Samples:		
RYASCPIA - 30260 :	25			RYDSCPXA - 30260 :_	30		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-W -30260		140		RDZ01- N -30260		<u></u>	
RDZ02- W -30260		202		RDZ02- N -30260		<u>33</u>	
RDZ03-W -30260		<u>52</u>		RDZ03- N -30260		_39_	
RDZ04- W -30260		210_		RDZ04- N -30260		104	
RDZ05- W -30260		106		RDZ05- N -30260		88	
RDZ06- W -30260		40		RDZ06- N -30260		69	
RDZ07- ₩ -30260		158		RDZ07- N -30260		131	
RDZ08-W -30260		89_		RDZ08- N -30260		112	
RDZ09- W -30260		81		RDZ09- N -30260		43	
RDZ10-W -30260		71		RDZ10- N -30260		89	
RDZ11-W -30260		50		RDZ11- N -30260		98	
RDZ12- W -30260		33		RDZ12- N -30260		58	
RDZ13-W -30260		28		RDZ13- N -30260		_33_	
RDZ14- W -30260		_68_		RDZ14- N -30260		47	
RDZ15-W -30260		30		RDZ15- N -30260		51	Ø
RDZ16-W -30260		60	☑ ً	RDZ16- N -30260		88	
RDZ17-W -30260		28		RDZ17- N -30260		54	
RDZ18-W -30260		30		RDZ18- N -30260		_53	
RDZ19-W -30260		29		RDZ19- N -30260		116	
RDZ20-W -30260		36		RDZ20- N -30260		141	
# of Samples:				# of Samples:			
Pay PS 1						044 201	10123

046141-012



	Sampled Address: 1924 BINNEY ST	Omaha Lead Site Site Sketch	Exterior Paint Good	North Arrow	
Г	Phone:	_	Poor ☐ Not paint		-
b c d e f. g h	Site grading and drainage (positive [away from structure] of Number of stories, roof overhang (measured if possible) air Presence of gutters, location of downspouts and drainage Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bare good by the possible po	nd distance from ground to soffit, swales. round, visible paint chips, etc.			
	20	9 ⁴ / ₂ ' (B2)			
			Downs CTYP.	spout)	
	(FI) 50 1924	BINNEY St			
,		8			
	A Positive B. 3 Story 25'-3' C. YES D PAINT E POOR F. W-GRASS N-GRASS G. WEST - North H. YES I. PAINT Chips Around Foundat	BINNEY St			
				· ·	

Rev RS-1 . . .



In Situ Samp	oles Analyzed	Ex Sif	tu Samı	ples Analyzed	Lab Samp	oles Analyzed	=
XRF Unit: Date: Staff:	Time:		-24.	D Book: 2/8 08 Time: Pm	ASR: Samples:		
RYBSCXPA-23160:	55		ï	RYASCPXA-23160:	15		
Sample Number		Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- E -23160		35		RDZ01-\$ -23160		46	
RDZ02- £ -23160		27		RDZ02- \$ -23160		42_	
RDZ03- £ -23160		31		RDZ03-S -23160		121	
RDZ04- E -23160		27		RDZ04- S -23160		41_	
RDZ05- £ -23160		74		RDZ05- S -23160		50_	
RDZ06- € -23160		67		RDZ06- S -23160		66	
RDZ07- E -23160		42		RDZ07- S -23160		<u> </u>	
RDZ08- £ -23160		27		RDZ08- S -23160		_30_	
RDZ09- £ -23160		24		RDZ09- \$ -23160		_30_	
RDZ10- £ -23160		32		RDZ10- S -23160		31	Ø
RDZ11- £ -23160		20		RDZ11- \$ -23160		21	
RDZ12- £ -23160		20		RDZ12- S -23160		24	
RDZ13- £ -23160		23		RDZ13- \$ -23160		19	
RDZ14- £ -23160		22		RDZ14- \$ -23160			
RDZ15-E -23160		24		RDZ15-\$ -23160		29	
RDZ16-£ -23160		20		RDZ16- \$ -23160		25	
RDZ17- £ -23160		19		RDZ17-\$ -23160		23	
RDZ18- £ -23160		22		RDZ18- S -23160			
RDZ19- だ -23160		25		RDZ19- S -23160		29	
RDZ20-£ -23160		18_		RDZ20- S -23160		16	
# of Samples:				# of Samples:			<u> </u>
						24470	

046141 012.



Sampled Address: 118 N 35 ST	Omaha Lead Site Site Sketch	Exterior Paint Good	North Arrow
Phone:		∑ Poor	· — ———
		☐ Not paint	
a. Site grading and drainage (positive [away from structure] b. Number of stories, roof overhang (measured if possible) c. Presence of gutters, location of downspouts and drainaged. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location i. Other observations that could impact the potential for elever	and distance from ground to soffit. e swales. ground, visible paint chips, etc Additional photos may be taken.	to develop.	
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	118 N. 35 St	, n	DWNSPOUL
	110 1463 - 3. 9. 1. 3. 1. 1. 1.		TYP)
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91/2			:
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j j j j i.d <u>.</u>			
			•
A. NEGATIVE	12/2 E		•
B. 3 Story 35-3'	2 (2		
B. 3 Story 35-3' C. YES	· · · · · · · · · · · · · · · · · · ·		
D. PAINT			·.·
E. POOR	11250+	,	
F.E-GRASS - S-GRASS	N35St		1.
G. EAST - South	· · · · · · · · · · · · · · · · · · ·		
H YES			;
I PAINT Chips AROUND FOUNDATION			•
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Omaha Lead Site Drip Zone Recontamination Study

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In Situ Samp	oles Analyzed	Ex Sit	tu Samı	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:		· 2 8 ·		ASR: Samples:		
RYBSCPXA-281651:	28			Overhang: _			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -28165		1576		RDZ01-W -28165		<u>635</u>	
RDZ02- № -28165		79		RDZ02-₩ -28165		115	
RDZ03- N -28165		34_		RDZ03-W -28165		39	
RDZ04- N -28165		25		RDZ04- W -28165		49	
RDZ05- N -28165		91		RDZ05- W -28165		40	
RDZ06- N -28165		_ 72		RDZ06-W -28165		48	
RDZ07- N -28165		43		RDZ07-W -28165		48	
RDZ08- N -28165		46		RDZ08- W -28165		110	
RDZ09- № -28165		38		RDZ09- W -28165		702	
RDZ10- № -28165		37_		RDZ10-W -28165		1024	
RDZ11- N -28165		30		RDZ11- W -28165		592	
RDZ12- N -28165		16	اً آ	RDZ12- W -28165		879	
RDZ13- N -28165		29		RDZ13-W -28165		714	
RDZ14- N -28165		28_		RDZ14-W -28165	Asphalt	, ,)	
RDZ15- № -28165		19		RDZ15-W -28165	Asphalt		
RDZ16- № -28165		20_		RDZ16-W -28165	Asphalt		
RDZ17- N -28165		30_		RDZ17-W -28165	Asphalt		
RDZ18- N -28165		<u> 28</u>		RDZ18-W -28165	Asphalt		
RDZ19- N -28165		24		RDZ19-W -28165	Asphalt		
RDZ 20 -N - 28165 RDZ21-N -28165		26		RDZ 20 28165	Asphalt		
# of Samples:				# of Samples:			



	Sampled Address: 1625 VICTOR AV	Omaha Lead Site – Site Sketch	Exterior Paint Good	North Arrow	
Ц	Phone:		Poor Not paint		-
	Site grading and drainage (positive [away from structure] or r	negative)	☐ Not paint		Ĺ
b.	Number of stories, roof overhang (measured if possible) and	distance from ground to soffif.			,
c. d.	Presence of gutters, location of downspouts and drainage sw Exterior finish.	vales.			:
e.	Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bare groups and provided the such as presence of vegetation, mulch, bare groups.				,
g.	DZ sample locations and wall orientation (N, S, E, W).				
lh.	Digital photos will be taken at each DZ sampling location. Ad Other observations that could impact the potential for elevated	ditional photos may be taken.	o develop		
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;	1625	lictor AV	: :		
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ľ				(TYP)	
	A. Absitive	10, FZ			
	0.1 Chail 20'- 2'	··· ··· · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •	• • •	
	B. 2 Story 20'-3' C. N+ S NOGUHER	\k			
: - -	D. Parket				
	E. POOR VICT	TOR AV		:	
:	F. N-GRASS W-GRASS			•	
				•	
	G. North - West H. Yes		:		
				2.	
,	I Paint Chips Around Foundation				
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Omaha Lead Site Drip Zone Recontamination Study

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In Situ Samp	oles Analyzed	Ex Si	tu Samı	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:		3 - 24 -	Book: 218 08 Time: Pm	ASR: Samples:		
RYBSCPXR-23412	23			Overhang: _			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- E -23412		33		RDZ01- N -23412		26	
RDZ02- € -23412		182		RDZ02- № -23412		_34_	
RDZ03- £ -23412		147		RDZ03- N -23412		_36_	
RDZ04- £ -23412		169		RDZ04- N -23412		24	
RDZ05-E -23412		73_		RDZ05- N -23412		29	
RDZ06- E -23412		31		RDZ06- № -23412		34	₽
RDZ07- E -23412		51	I	RDZ07- N -23412		28	
RDZ08- E -23412		_159		RDZ08- № -23412		26	
RDZ09- E -23412		_57_		RDZ09- N -23412		_23_	
RDZ10- E -23412		30_		RDZ10- N -23412		_20_	
RDZ11- E -23412		<u>52</u>		RDZ11- № -23412		42	
RDZ12- € -23412		_ 36_		RDZ12- N -23412		_26_	
RDZ13- E -23412		138		RDZ13- N -23412		_30_	
RDZ14- E -23412		40		RDZ14- № -23412		32	
RDZ15- E-23412		_52_		RDZ15- N -23412		29	
RDZ16- E -23412		34		RDZ16- № -23412		_34_	
RDZ17- E -23412		_31_		RDZ17- N -23412		25	
RDZ18- E -23412		_ 23		RDZ18- N -23412		<u> 38</u>	
RDZ19- E -23412		33		RDZ19- № -23412		19	
RDZ20- E -23412		29		RDZ20- N -23412		_17_	
# of Samples:				# of Samples:			



Sampled Address: 224 N 32 AV Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from struct b. Númber of stories, roof overhang (measured if possit c. Presence of gutters, location of downspouts and drain d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, b. g. DZ sample locations and wall orientation (N, S, E, W. h. Digital photos will be taken at each DZ sampling loca i. Other observations that could impact the potential for	ole) and distance from ground to soffit. nage swales. are ground, visible paint chips, etc.). tion. Additional photos may be taken.		
			•
			:
	1		:
		<u> </u>	DOWNSPOUT
			,Downspout (TYP)
			:
		⊹ ⊹∟ <u>`</u> ,	
			:
	<u> </u>		
	3 224 N. 32 1	AV	91/2'
			(FZ)
			l I
			;
A Deciliar			
A. Positive B. 3 Story 30'-3'		72	
C, YES		, (n)	
D. Paint			
E. Poor	32 AV	: : : : : : : : : : : : : : : : : : : :	· .
F. E. GRASS N. BRASS			:
G. EAST - NORTH H. YES			
I PAINT Chips AROUND FOUNDATION			:
		<u> </u>	
			:
		• • • • • • • • • • • • • • • • • • • •	:

∠∪○A Hょらん Drip Zone Recontamination Study



In Situ Samp	oles Analyzed	Ex Si	tu Samı	oles Analyzed	Lab Samp	oles Analyzed	\exists
XRF Unit: Date: Staff:	Time:	_	8.24.0	Book: <u>218</u> Stime: Ac	ASR: Samples:		i i
RYB5CPXA-22355_	21			RYC SCPXA - 22355	28		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- W -22355		788		RDZ01- N -22355	WALK		
RDZ02- W -22355		240		RDZ02- N -22355	_WALK		
RDZ03- W -22355		293		RDZ03- N -22355	WALK		
RDZ04- W -22355		2401	1	RDZ04- N -22355	WALK		
RDZ05- W -22355		1809		RDZ05- N -22355	WALK		
RDZ06-₩ -22355		764		RDZ06- N -22355	WALK		
RDZ07- W -22355		471		RDZ07- N -22355	WALK		
RDZ08-W -22355		415_		RDZ08- N -22355		916	
RDZ09- W -22355		196		RDZ09- N -22355		227	
RDZ10- W -22355	Shurk			RDZ10- W -22355		186	
RDZ11-₩ -22355	Shurb			RDZ11- N -22355		142	
RDZ12- W -22355	Shurb			RDZ12- N -22355		49	
RDZ13-W -22355	Shurb			RDZ13- N -22355		53	
RDZ14 -) -22355	Shurb			RDZ14- N -22355		62	
RDZ15-W -22355		155		RDZ15- N -22355		43	13
RDZ16- W -22355		112		RDZ16- V -22355		122	
RDZ17- \ \ -22355				RDZ17- N -22355		_63_	
RDZ18- \N -22355		41		RDZ18- N -22355		43	
RDZ19- W -22355		30_		RDZ19- N -22355		40	
RDZ20 W -22355		<u>35</u>		RDZ20- N -22355		_68_	
# of Samples:				# of Samples:			-
Rev RS-1						04470	1 01,23



Sampled Address: 701 S 36 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from st Number of stories, roof overhang (measured if po Presence of gutters, location of downspouts and Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulc DZ sample locations and wall orientation (N, S, E Digital photos will be taken at each DZ sampling Other observations that could impact the potential	h, bare ground, visible paint chips, etc. W). Note the control of the control o	es to develop.	
	WALK 6		
		Par .	
o	7015.36 St		NSPOUT (YP)
MA		o	
9½' (BI)			
A. Positive B. 3 Story 30'-312' C. Yes	3HRUBS (FZ)		
D. PAINT E. POOR F. N. GRASS WGRASS G. NORTH - WEST H. YES I. PAINT Chips Around Foundation	S. 36 St		

Omaha Lead Site Drip Zone Recontamination Study

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In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	$\overline{}$
XRF Unit: Date: Staff:	Time:	_	8-24	D Book: <u>2/8</u> 1' <i>0</i> 8 Time: <i>Pm</i>	ASR: Samples:		
RYBSCPXA - 23680:	27			Overhang:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- \$ -23680		33		RDZ01- £ -23680		_38	
RDZ02- \$ -23680		708		RDZ02- £ -23680)	_33	
RDZ03- \$ -23680		295		RDZ03- £ -23680)	101	
RDZ04- \$ -23680		199		RDZ04- <i>E</i> -23680)	40	
RDZ05- \$ -23680		<u> 34</u>		RDZ05- E -23680)	36	
RDZ06- \$ -23680		23		RDZ06- E -23680)	25	
RDZ07- \$ -23680		28		RDZ07-E -23680)	26	
RDZ08- \$ -23680		87		RDZ08- E -23680)	_62_	☑
RDZ09- \$ -23680		188		RDZ09-E -23680)	27	
RDZ10- \$ -23680		<u> 41</u>	I	RDZ10- E -23680)	27	
RDZ11- \$ -23680		41_		RDZ11- E -23680)	25	
RDZ12-\$ -23680		<u>35</u>		RDZ12- E -23680)	_66_	
RDZ13- \$ -23680		86_		RDZ13-E -23680)	22	
RDZ14- \$ -23680		29_		RDZ14-E -23680)	24	
RDZ15- \$ -23680		34		RDZ15- E -23680)	25	
RDZ16-\$ -23680		30		RDZ16-E -23680)	24	
RDZ17-5 -23680		33		RDZ17- E -23680)	13	
RDZ18- \$ -23680		34		RDZ18- E -23680)	24	
RDZ19- S -23680		56_		rDZ19- E -23680		_22_	
RDZ20-\$ -23680		28		RDZ20- <i>E</i> -23680		23_	
# of Samples:]	# of Samples:			



Sampled Address: 3122 CHICAGO ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure] or b. Number of stories, roof overhand (measured if possible) and c. Presence of gutters, location of downspouts and drainage std. Exterior finish.	d distance from ground to soffit.		
e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare grog. g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. As i. Other observations that could impact the potential for elevater.	dditional photos may be taken.	to develop.	· · · · · · · · · · · · · · · · · · ·
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9 3122	Chicago St 1.		; ;;-
		91/21	
		(F2)	
	;	0K ;	:
			: :
A. Positive	91/21		DOWNSpout
B, 3 Story 30f-41	nicabo St	,	(TYP)
C. YES Cr	NCAGO ST		÷
E. Poor			:
F. South-GRASS- & GRASS			
G, South-East H. VES			· · · · · · · · · · · · · · · · · · ·
I. Poor Paint	:		
Rev RS-1			,

In Situ Samp	les Analyzed	Ex Sit	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	- I	-04-0	0 Book: 218 9 Time: Am	ASR: Samples:		
RYD SCPXA · 27659:	21	_		RYBSCPXA - 27559	23		
Sample Number	In Situ Lead	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-\$ -27559		154		RDZ01- N -27559	LS		
RDZ02-\$ -27559		35		RDZ02- N -27559	LS		
RDZ03-\$ -27559		27		RDZ03- N -27559	LS		
RDZ04-S -27559		24	S	RDZ04- N -27559	LS		
RDZ05-\$ -27559		31_		RDZ05- N -27559	<u>LS</u>		
RDZ06-S -27559		20		RDZ06- N -27559	LS		
RDZ07-\$ -27559		29		RDZ07- N -27559	-	_25_	
RDZ08-S -27559		34		RDZ08- N -27559		46	
RDZ09-\$ -27559		24		RDZ09- N -27559		29	
RDZ10-S -27559		24		RDZ10- N -27559		26	
RDZ11-\$ -27559		28		RDZ11- N -27559		29_	
RDZ12-5 -27559		16		RDZ12- N -27559		<u>35</u>	
RDZ13-\$ -27559		28		RDZ13- N -27559		39	
RDZ14-S -27559		32_		RDZ14- № -27559		39_	
RDZ15-\$ -27559		30_		RDZ15- N -27559		41_	
RDZ16-S -27559		28		RDZ16- V -27559		<u>52_</u>	
RDZ17-\$ -27559		16		RDZ17- N -27559		56_	
RDZ18-S -27559		20		RDZ18- N -27559		_ 47_	
RDZ19- \$ -27559 RDZ20-5-27559 RDZ21- \$ -27559		27 19 19		RDZ19- N -27559 RDZ20 - N -27559 RDZ2I - N -27559		37 57 119	
# of Samples:				# of Samples:			



Sampled Address: 4227 GRANT ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from struct Number of stories, roof overhang (measured if possion of possion of gradients). Presence of gutters, location of downspouts and drain exterior finish. Paint condition and XRF results. Paint condition and XRF results. Particle of the possion of statement of the possion of the possio	ble) and distance from ground to soffit. inage swales. bare ground, visible paint chips, etc. //). ation. Additional photos may be taken.		
	(8-2)		
	P C.	DOWNSPOUT (TYP)	f
422	7 GRANT ST		
20			
40.04			
A.S. Fostive - North - Negative B. 2 Story 20'= 2' C. YES D. PAINT E. PEOR F. S. GRASS - N-13 GRASS	wt St		
B. South-North H. YES I. PAINT Chips Around Foundation	A		
		•	•



In Situ Samples Analyzed		Ex Si	Ex Situ Samples Analyzed		Lab Samples Analyzed		
XRF Unit:	Book:	XRF Unit:	6540) Book: <u>2/8</u>	ASR:		
Date:		-		<u> 28</u> Time: <u>Pm</u>	Samples:		
Staff:		Staff: <u>/</u>	ISW				
RYRSCPXA-37777:_	24			Overhang: _			
Sample Number	In Situ Lead Concentration		LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -37777		<u>60</u>		RDZ01- £ -37777		114	
RDZ02- N -37777		37		RDZ02- £ -37777		62_	
RDZ03- N -37777		<u>48</u>		RDZ03- E -37777		<u>55</u>	
RDZ04- N -37777		_32_		RDZ04- E -37777		284	
RDZ05- N -37777		_51_		RDZ05- E -37777	WALK		
RDZ06- № -37777		72		RDZ06- £ -37777	WALK		
RDZ07- № -37777		_42_		RDZ07-£ -37777	WALK		
RDZ08- N -37777	WALK			RDZ08- E -37777	WALK		
RDZ09- N -37777	WALK			RDZ09-Æ -37777		39_	
RDZ10- N -37777	WALK			RDZ10-E -37777		26	
RDZ11- N -37777	WALK			RDZ11- £ -37777		27	
RDZ12- N -37777		_56_		RDZ12-E -37777			
RDZ13- N -37777		_27		RDZ13- & -37777		<u>23</u>	
RDZ14- N -37777		_25		RDZ14- E -37777		20_	
RDZ15- N -37777		20_		RDZ15- £ -37777		18	
RDZ16- N -37777		19		RDZ16- E -37777			
RDZ17- N -37777		20	☑ ;	RDZ17- E -37777		31	
RDZ18- N -37777		<u>25</u>		RDZ18- £ -37777		22	
RDZ19- N -37777		22		RDZ19- E -37777	,	<u>29</u> 25	
RDZ20 - N - 37777 RDZ21 - N -37777		25 20		14 RDZ20- E- 37777 RDZ21- E -37777		22	N N
# of Samples:				# of Samples:			
05-L-3						04470	1.01 23

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Sampled Address: 2439 HARTMAN AV Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure] or b. Númber of stories, roof overhang (measured if possible) and c. Presence of gutters, location of downspouts and drainage s d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare groups.	d distance from ground to soffit. wales.		
g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. A i. Other observations that could impact the potential for elevate	dditional photos may be taken.	to develop.	÷:
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:::	39 HARTMAN AV		**
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	LS WALK	,	•
AN Postive-ENEGAtive		•	
D // Change and and	· · · · · · · · · · · · · · · · · · ·		
C. VES			
D. Paint	<u> </u>		
E, POOR			
F. N-GRASS + WALK E GRASS + WALK	HARTMAN AV		
G North EAST	THE PROPERTY AND ADDRESS OF THE PARTY OF THE	**	
H. YES		:	
I. PAINT Chips AROUND FOUNDATION	· · · · · · · · · · · · · · · · · · ·		• •
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In Situ Samples Analyzed		Ex Si	Ex Situ Samples Analyzed		Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:	_	7.04.	0 Book: <u>218</u> - 08 Time: Pm	ASR: Samples:		
RYBSCPIA-51575	416	_		RYCSCPNA - 61575 _	26		J
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	l.AB
RDZ01- £ -51575		24		RDZ01- N -51575		46	
RDZ02- £ -51575		19		RDZ02- N -51575		<u>48</u>	
RDZ03- £ -51575		49		RDZ03- N -51575		<u>5</u>]	図
RDZ04- と -51575		104	\mathbf{Z}	RDZ04- N -51575		35	
RDZ05-E -51575		32_		RDZ05- <i>N</i> -51575		37	
RDZ06- と -51575		1744		RDZ06- N -51575		47	
RDZ07- ₺ -51575				RDZ07- N -51575		<u>55</u>	
RDZ08- と -51575		459		RDZ08- N -51575		93	
RDZ09-£ -51575		467		RDZ09- N -51575		<u>65</u>	
RDZ10- E -51575		178_		RDZ10- N -51575		59	
RDZ11- £ -51575		<u> 308</u>		RDZ11- N -51575		45	Ü
RDZ12-E -51575		97		RDZ12- N -51575		<u>43</u>	
RDZ13- だ -51575				RDZ13- N -51575		34	
RDZ14- E -51575		97		RDZ14- N -51575		_53_	
RDZ15-E -51575	- 1 and - 1 an	196		RDZ15- N -51575		83	
RDZ16-£ -51575		<u>64</u>		RDZ16- N -51575		63	
RDZ17-£ -51575		56_		RDZ17- N -51575		46	
RDZ18-£ -51575		157		RDZ18- N -51575		166	
RDZ19-E -51575 RDZ20-E-51575 RDZ21-E -51575		105 87 367		RDZ19- N -51575 ** RDZ20-N-51575 RDZ2]- N -51575		107	
# of Samples: みん				# of Samples:		049 11	



a. Site grading and drainage (positive [away from structure] or negative). b. Number of stories, roof overhang (measured if possible) and distance from ground to soffit. c. Presence of gutters, location of downspouts and drainage swales. d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc. g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken. i. Other observations that could impact the potential for elevated soil lead concentrations in drip zones to de-	Not paint	
b. Number of stories, roof overhand (measured if possible) and distance from ground to soffit. c. Presence of gutters, location of downspouts and drainage swales. d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc. g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken.	: :	
f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc. g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken.		:
	evelop.	
B 10'		
Gr25 1		
5010 Chicago St	P	OWNSpout (TYP)
JOIO CHICAGO ST		
<u> </u>		· · · · · · · · · · · · · · · · · · ·
Chicago St		
A. Positive B. 35tory 35-3'		•
C YES D PAINT		
E. Geod F. E-Grass-N. Grass G. East-North		
H. YES I. PAINT Chips Around Foundation		:
		946141 012

In Situ Samp	In Situ Samples Analyzed		Ex Situ Samples Analyzed		Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:	Date:	9.04	O Book: <u>2/8</u> -08 Time: <u>Am</u>	ASR: Samples:		
	27			RYBSCPXA - 23974 :	23		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	L.Ai
RDZ01- W -23974		256		RDZ01- S -23974		775	
RDZ02- W -23974		131		RDZ02- S -23974		<u> 45 </u>	
RDZ03- W -23974		89	Y	RDZ03- S -23974		35_	
RDZ04- W -23974		125		RDZ04- S -23974		41_	
RDZ05- W -23974		154		RDZ05- S -23974		46	
RDZ06- W -23974		84		RDZ06- S -23974		<u>45</u>	
RDZ07- W -23974		46		RDZ07-S -23974		38	
RDZ08-W -23974		51		RDZ08- S -23974		72	V
RDZ09- W -23974		88		RDZ09- S -23974		62	
RDZ10- W -23974	WALK			RDZ10- S -23974		70	
RDZ11- W -23974	WALK			RDZ11-\$ -23974		46	
RDZ12- W -23974	WALK			6 RDZ12-\$ -23974		49	
RDZ13- W -23974	WALK			RDZ13- S -23974		47	
RDZ14- ₩ -23974	WALK			RDZ14- S -23974		<u> </u>	
RDZ15- W -23974	WALK			RDZ15-\$ -23974		79	
RDZ16- √ -23974		163		RDZ16-9 -23974		67_	
RDZ17- W -23974		<u> 62</u>		RDZ17- \$ -23974		98	
RDZ18- W -23974		<u> 34</u>		o² RDZ18-S -23974		77	
RDZ19-W -23974 RDZ 2 0-W-2 3974 RDZ21-W-23974		41 36 44		RDZ19-\$ -23974 RDZ 20-\$-2397 4 RDZ 21-\$-2 3974	4	88 72 33	
# of Samples:				# of Samples:			
ev RS-1						04470	+ 01-23



Sampled Address: 523 N 40 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from street]). Number of stories, roof overhang (measured if positive presence of gutters, location of downspouts and Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mug. DZ sample locations and wall orientation (N, S, h. Digital photos will be taken at each DZ sampling i. Other observations that could impact the potential	possible) and distance from ground to soffif. d drainage swales. ulch, bare ground, visible paint chips, etc. E, W). g location. Additional photos may be taken.	nes to develop.	
	æ	Downspout	
		8	
¥¥	523 N. 40 St		
3			
			, , ,
	<u>-</u>	10').
8 1	WALK	(F 1) /	
h. Positive			
B. 3 Shory 30'-3' C. VES	N. 40 St		;
D. PAINT E. POOR F. WEST-GEASS+WALK SOUTH-GR	,		
G. WEST - South			* * ***
I. PAINT Chips Around Found	AHON		:
			044410173

In Situ Sam	ples Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
Date:	Book: Time:		3 · 28-	<u>10</u> Book: <u>218</u> -08 Time: 2 →	ASR: Samples:		
RYCSPEXA - 200 :_	20	·		Overhang:			
Sample Number		Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- € -200		2898		RDZ01- S -200		4503	
RDZ02-£ -200		613		RDZ02- \$ -200		172	v
RDZ03-£ -200		<i>5</i> 56		RDZ03- S -200	Rocks		
RDZ04-£ -200		165		RDZ04- \$ -200	Rocks		
RDZ05-€ -200		37		RDZ05- \$ -200	Rocks		
RDZ06-£ -200		40		RDZ06- S -200	Rocks		
RDZ07-₺ -200		<u>33</u>		RDZ07-\$ -200		1032	
RDZ08-£ -200		31		RDZ08- \$ -200	····	975	
RDZ09-E -200		33		RDZ09-\$ -200		166	
RDZ10-Æ -200		20		RDZ10- S -200		34	
RDZ11-£ -200		28		RDZ11- \$ -200		19_	
RDZ12- -200		26		RDZ12- S -200	<u>-</u>	23_	
RDZ13- £ -200		<u>33</u>		RDZ13- \$ -200		25	
RDZ14-£ -200		30		RDZ14- \$ -200		29_	
RDZ15- £ -200	DRIVEWAY _	······································		RDZ15- S -200		24	
RDZ16- € -200	DRIVEWAY			RDZ16- \$ -200		28	
RDZ17- £ -200	DRIVEWAY			RDZ17- \$ -200		22_	
RDZ18- £ -200	DRIVEWAY			RDZ18-\$ -200		21	
RDZ19- £ -200 RDZ 20- £ -200 RDZ21- £ -200	DRIVEWAY DRIVEWAY DRIVEWAY			RDZ19-\$ -200 RDZ20-\$ -200 RDZ21-\$ -200		23 23 24	
# of Samples:				# of Samples:			
Rev RS-1						04470	1.01 23



Sampled Address: 1484 PINKNEY ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure b. Number of stories, roof overhang (measured if possible) c. Presence of gutters, location of downspouts and drainag d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location i. Other observations that could impact the potential for ele	rand distance from ground to soffif. ge swales. ground, visible paint chips, etc. n. Additional photos may be taken.	to develop.	
			, , , , , , , , , , , , , , , , , , ,
∠ A		DOWNSPOO (TYP)	ųΤ
	8	(TYP)	
20			
1484	PINKNEY St.	· · · · · · · · · · · · · · · · · · ·	
	JAKACY OIL		
का विकास		(2')	
	LS		
	(2)		
A Positive B. 3 Story 30'-3' C. YES			
D. PAINT	NKNEY St		
GEAST - SOUTH GRASS TO PAINT Chips AROUND FOUNDATION	IN ANALY OF		· · · · · · · · · · · · · · · · · · ·
T' LHIM CITY OF ASSESSED.			;
		,	

In Situ Samp	In Situ Samples Analyzed Ex Situ San				ples Analyzed Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:		9.02	D Book: 218 • ∞ Time: Am	ASR: Samples:		
RYBSCPXA - 22219 :	269			RYASCPXA-22219 :_	38		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- \$ -22219		123		RDZ01-W -22219		361	
RDZ02-\$ -22219		_60		RDZ02- W -22219		109	
RDZ03-\$ -22219		99		RDZ03- W -22219		100_	
RDZ04- \$ -22219		203		RDZ04- W -22219		89	
RDZ05- \$ -22219		417		RDZ05-W -22219	WALK		
RDZ06-\$ -22219	WALK			RDZ06- W -22219	WALK		
RDZ07- S -22219	WALK			RDZ07- W -22219	WALK		
RDZ08- <i>S</i> -22219	WALK			RDZ08- W -22219	WALK		
RDZ09- S -22219	WALK			RDZ09- W -22219		<u> 155</u>	
RDZ10- \$ -22219				RDZ10- W -22219		91	
RDZ11- S -22219		<u>65</u>		RDZ11-₩ -22219		46	
RDZ12- \$ -22219		38		RDZ12-W -22219		42_	
RDZ13- S -22219		48		RDZ13- W -22219		<u>47</u>	
RDZ14- ^S -22219		40		RDZ14- W -22219		41	
RDZ15- \$ -22219		44		RDZ15- W -22219		30	
RDZ16- S -22219		48_		RDZ16- W -22219		26	
RDZ17- S -22219		67_		RDZ17- W -22219		_26_	
RDZ18- S -22219		<i>.</i> 55		RDZ18- W-22219		36	
RDZ19- \$ -22219		_56_	d	RDZ19- W -22219		_38_	
RDZ20-S -22219				RDZ20-W -22219		40	Ø
# of Samples:				# of Samples:			
						044701	01.23



Sampled Address: 3036 MARCY ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from structu Number of stories, roof overhang (measured if possible Presence of gutters, location of downspouts and drain Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, ba	le) and distance from ground to soffit. age swales. are ground, visible paint chips, etc.		
DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling locat Other observations that could impact the potential for e	ion. Additional photos may be taken.	to develop.	
	WALK.	.	
	3036 MARCY ST		
91/2			
(FI)			
A. Positive	WALK		OWNSPOUT
B 2 Story 30 - 2' C. YES	91/2 (F2)		(TYP)
D. PAINT E. POOR F.S. GRASS W. GRASS	MARCY St		: : :
G. South - WEST H. YES			** : :
I PAINT Chips AROUND FOUNDATION			<u>:</u> :
RS-1			

In Situ Samples Analyzed E			itu Samı	ples Analyzed	Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:	1	9-04	I .	ASR: Samples:		
RYASCPXR 27081:	46			Overhang: _			
Sample Number	In Situ Lead E Concentration Co	x Situ Lead oncentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- V -27081		346		RDZ01- £ -27081		367	
RDZ02- N -27081		366	☑ .	RDZ02- E -27081		<u> 284</u>	
RDZ03- N -27081		287		RDZ03- ₺ -27081		236	
RDZ04- N -27081		325		RDZ04- E -27081		237	
RDZ05- N -27081		390		RDZ05- £ -27081		199	
RDZ06- N -27081		110		RDZ06-E -27081		193	
RDZ07- N -27081		119		RDZ07- £ -27081		33	
RDZ08- N -27081		137		RDZ08- £ -27081		31	
RDZ09- N -27081		108		RDZ09- E -27081		_36_	
RDZ10- N -27081		144		RDZ10-E -27081		42	
RDZ11- N -27081		156		RDZ11-E -27081		31	
RDZ12- N -27081		92		RDZ12- E -27081		30_	
RDZ13-N -27081		93		RDZ13-E -27081		_29	
RDZ14- N -27081		86		RDZ14- E -27081		28_	
RDZ15- N -27081		83		RDZ15-E -27081		43	
RDZ16- N -27081		79	ָ [֖] ֡֞֞֝֓֞֝֞֝֓֓֓֓֓֓֡֡	RDZ16- ₹ -27081		31	
RDZ17- N -27081		_80_		RDZ17- E -27081		28_	
RDZ18- N -27081		40		RDZ18-E -27081		22_	
RDZ19- N -27081 RDZ20- N-27081 RDZ2I - N -27081		37 37 25		RDZ19- E -27081 RDZ20- E -27081 RDZ21- E -27081		23 20 22	1 1 1 1
# of Samples:				# of Samples:			
07-L-3						04470	1 01.23



Sampled Address: 4303 PATRICK AV Phone:	Omaha Lea Site Ske		Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from structure] Númber of stories, roof overhang (measured if possible) a Presence of gutters, location of downspouts and drainage Exterior finish.	ind distance from ground	to soffit.		· :
Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bare of DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling location. Other observations that could impact the potential for elevations.	Additional photos may b	e taken.	develop.	:. :
	*, * * * * * * * * * * * * * * * * * *		· · · · · · · · · · · · · · · · · · ·	
			· · · · · · · · · · · · · · · · · · ·	
		, , , , , , , , , , , , , , , , , , , ,		
	Q.	Downspo (Typ)	ut	
				· · · ·
4303 Patrick	AV	, , , , , , , , , , , , , , , , , , ,		<u>:</u> . :
1				, .
(FI)			• • • • • • • • • • • • • • • • • • • •	;
9		, , , , , , , , , , , , , , , , , , , ,		· · · · · · · · · · · · · · · · · · ·
, <u>2</u>	<u> </u>			
			A Positive B. Ishry I	
<u>Patrick</u>	AV		C. YES D. PAINT	
			E. POOR F. N. GRASS	- E - GLASS
			G. NORTH - R H. YES	•
				: AROUND Foundation
L-3				

Drip Zone Recontamination Study

	иш	шш	Ш	

In Situ Samp	les Analyzed	Ex Si	tu Sam	nples Analyzed Lab Samples Analyzed			
XRF Unit: Date: Staff:	Time:	_	-21-0	<u> </u>	ASR: Samples:		
RYASCPXA-4871	3: <u>108</u>			RYBSCPXA-487	/3: 19		
Sample Number	In Situ Lead Concentration		LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- ~ -48713	walk			RDZ01- 🔰 -4871:	WALK		
RDZ02- ^/ -48713	Walk			RDZ02- ₩ -4871;	3 Walk		
RDZ03- № -48713	walk			RDZ03- 🕡 -4871:	WALK_		
RDZ04- n ⁄ -48713	Walk			RDZ04- 🕡 -48713	3 Walk		
RDZ05- № -48713		_286_		RDZ05- ₩ -4871	ualk		
RDZ06- / -48713		46		RDZ06- 🕡 -48713	3 Walk		
RDZ07- 🆊 -48713		35_		RDZ07- w -4871	3	270	
RDZ08- / -48713		22		RDZ08- <i>W-</i> 48713	3	27	
RDZ09- A -48713		20		RDZ09- V -48713	3	26	
RDZ10- N -48713				RDZ10- W -4871:	3	26_	
RDZ11- N -48713		21		 RDZ11- ₩ -48713	3	28_	
RDZ12- / -48713		25		RDZ12- ▶ -4871;	3	26	
RDZ13- N -48713		23_		RDZ134871	3	23	
RDZ14- N -48713		27		RDZ14- ₩ -4871:	3	20	
RDZ15- № -48713		25		RDZ15- 🛩 -4871:	3	20	
RDZ16- N -48713		<u> 26</u>		RDZ16- 🗸 -48713	3	3_	
RDZ17- N -48713		38_	y ,	RDZ17- W -4871:	3	26	
RDZ18- N -48713			□ ,	RDZ18- W -4871	3	34	
RDZ19- № -48713		<u>25</u>		RDZ19- W -48713		23	
RDZ20- N -48713		23		RDZ20- W -4871: RDZ21- W -4871:		24	
# of Samples:				# of Samples:			



	Sampled Address: 2019 N ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor	North Arrow
		_	☐ Not paint	▼
bodefgh	Site grading and drainage (positive [away from struct Number of stories, roof overhand (measured if possit Presence of gutters, location of downspouts and drain Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, but DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling locations of the potential for the potential for	ole) and distance from ground fo soffit. nage swales. nare ground, visible paint chips, etc.). tion Additional photos may be taken.		
ľ	Other observations that could impact the potential for .	elevated soil lead concentrations in drip żones	to develop.	
ŀ	: : : : :			•
:				• • • • • • • • • • • • • • • • • • • •
:		WALK		· - · · · ·
		CONC	<u>ַ</u>	•
		2019 N St	MAL.	
			(FZ)	
;		WAIK F	Dov	VNSPOUT
			CTY	(P)
-	A. Positive B. 2 Story-20'-2'	91/2 (F1)		
 - -	C. YES D. PAINT	· · · <u>· · · · · · · · · · · · · · · · </u>		:
,	E. Poor FN- GRASS - W-GRASS			
	G. NORTH - WEST H. YES	N St		:
	I. PAINT Chips IN DZ		• • • • • • • • • • • • • • • • • • • •	÷
,				: : :
R	ev RS 1			

Drip Zone Recontamination Study



In Situ Samples Analyzed		Ex Si	Ex Situ Samples Analyzed		Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:		1-02-		ASR: Samples:	Date:	
RYASCPXA - 18403: _	2.5	_		Overhang: _			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- £ -18403		_40_		RDZ01- S -18403		<u>35</u>	
RDZ02- £ -18403		23		RDZ02- S -18403		_31	
RDZ03- E -18403		<u>35</u>		RDZ03- \$ -18403		2.5	
RDZ04- £ -18403		_28_		RDZ04- S -18403		_37	
RDZ05- E -18403		_54		RDZ05- S -18403		_23_	
RDZ06- € -18403		29		RDZ06- \$ -18403		26	
RDZ07- £ -18403		_31_		RDZ07- S -18403		36	
RDZ08- E -18403		47		RDZ08- \$ -18403		47_	
RDZ09- € -18403		_21_		RDZ09- \$ -18403		_35_	
RDZ10- E -18403		32	اً 🗖	RDZ10- S -18403		24	
RDZ11-E -18403		21	اً 🗖	RDZ11- S -18403		34	
RDZ12- E -18403			اً 🗖	RDZ12- S -18403		_32_	
RDZ13- E -18403		_27_		RDZ13- S -18403		36	
RDZ14- E -18403		_27_	اً ت	RDZ14- S -18403		48	
RDZ15-E -18403		29	اً 🗆	RDZ15-\$ -18403		_66	\square
RDZ16- E -18403		25		RDZ16- \$ -18403		7.6	
RDZ17- E -18403		31		RDZ17- S -18403		205	
RDZ18-E -18403		_30_		RDZ18-\$ -18403		261	
RDZ19-E -18403 RDZ20-E-18403 RDZ2 -E -18403		16 27 29		RDZ19- \$ -18403 RDZ20-\$ -18403 RDZ21-\$ -18403		146 203 84	
# of Samples:				# of Samples:			<u>;</u>
)7-M-4						04470	1 01,23



Sampled Address: 1956 S 15 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
ite grading and drainage (positive [away from struct lumber of stories, roof overhang (measured if possitivesence of gutters, location of downspouts and draixterior finish. I aint condition and XRF results. I features such as presence of vegetation, mulch, I ample locations and wall orientation (N, S, E, W ligital photos will be taken at each DZ sampling location observations that could impact the potential for	ble) and distance from ground to soffit. inage swales. pare ground, visible paint chips, etc. //). ation. Additional photos may be taken.		
			: :
		D 40	•
		DOWN	spout (P)
	8 /		
	; ;	, ,	, , ,
		D =	:
	1956 S 15 St		,
	東京な gro 中の - Newford でき 2000 agus 2000 e e e ege e e e e e e e e e e e e e e e	, , , , , , , , , , , , , , , , , , , ,	
<u> </u>		4	
(FI)			

A. Positive			**
8:35 tory 30'-3' C. YES			:
Part .	3		
E. POOR F. E. GRASS — S-GRASS			:
G. EAST - South	c = c		
H. YES I PAINT Chips AROUND FOUNDATION	S15 St		
			•
			,.
		, , , , ,	

|--|--|--|--|--|--|--|--|

In Situ Samp	les Analyzed	Ex Sit	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	_	9-2-	08 Time: Pm	ASR:		
RYASCPXA 26945_	20			RYBSCPXA - 26945	24		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- \$ -26945		912		 RDZ01- E -26945		_52_	
RDZ02- S -26945		897		 RDZ02- € -26945		21_	
RDZ03- \$ -26945		1467		 RDZ03- E -26945		20	Ø
RDZ04- \$ -26945		859		RDZ04- £ -26945		_22_	
RDZ05-\$ -26945		934		 RDZ05- ₺ -26945		19	
RDZ06-\$ -26945		899		RDZ06-£ -26945			
RDZ07-\$ -26945	WALK			RDZ07- £ -26945		_16	
RDZ08- S -26945	WALK			RDZ08-£ -26945			
RDZ09- <i>S</i> -26945	WALK			RDZ09- £ -26945		16	
RDZ10-\$ -26945	WALK			RDZ10-£ -26945			
RDZ11-S -26945	WALK			RDZ11- E -26945		_20_	
RDZ12-\$ -26945	WALK			 RDZ12- £ -26945		20_	
RDZ13-\$ -26945				RDZ13-₹ -26945		18	
RDZ14-\$ -26945		_2 _		RDZ14- E26945		20	
RDZ15-S -26945		15		 RDZ15-		17	
RDZ16-S -26945		20		RDZ16- E -26945		_23_	
RDZ17-\$ -26945		26		 RDZ17- ₺ -26945		19	
RDZ18-\$ -26945		22_		RDZ18- £ -26945		19	
RDZ19-\$ -26945 RDZ20-\$-26945 RDZ21-\$ -26945		23 17 17		RDZ19- £ -26945 RDZ20- E-26945 RDZ21- E -26945		20 14 20	
# of Samples:				# of Samples:			
Rev RS-I						04470	1 01 23



Sampled Address: 43 Phone:	40 PARKER ST	Omaha Lead Site Site Sketch	Exterior Paint ☐ Good ☑ Poor ☐ Not paint	North Arrow
c. Presence of gutters, location d. Exterior finish. e. Paint condition and XRF resu f. DZ features such as presence g. DZ sample locations and wal h. Digital photos will be taken a	nang (measured if possible of downspouts and draina ults. e of vegetation, mulch, bar Il orientation (N, S, E, W). t each DZ sampling location	and distance from ground to soffit.	s to develop.	
	ΓĒ	8	Dow	nspout YP)
			1 5-	
	<u> </u>	4340 Parker St		
	XX		•مار	
			10' (F-2)	
A.S-NEGATIVE -1 B. 2STORY 20'- C. YES D. PAINT		WALK (14)	8	
E. Poor F. Sowth - grass + NA B. South - EAST	UK-East-Grass	PARKER St		: : : :
H. YES I. Paint Chips A	ROUND FOUNDATION			
	·		· · · · · · · · · · · · · · · · · · ·	. 046141 012

In Situ Sam	ples Analyzed	Ex Sit	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit:	Book:			D Book: 218	ASR:		
Date: Staff:	Time:	Date: <u>_9</u> Staff: <u></u> f		08 Time: <u>Pm</u>	Samples:	· · · · · · · · · · · · · · · · · · ·	
		_ Otali:	1000				
RYCSCPXR · 1641 _	22	— Ev Situ Lood		RYASCPXA · 1041	21 In Situ Lead	— Ex Situ Lead	
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	Concentration	Concentration	LAB
RDZ01- S -1041		3/_		RDZ01- N -1041		66	
RDZ02- S -1041		24		RDZ02- N -1041		34	
RDZ03- S -1041		20		RDZ03- N -1041		29	
RDZ04- S -1041		35		RDZ04- N -1041		<u> 30</u>	
RDZ05- S -1041		22		RDZ05- N -1041		26	
RDZ06- S -1041		23		RDZ06- N -1041		23_	
RDZ07- S -1041		35		RDZ07- N -1041		23	\square'
RDZ08- S -1041		24	Ø,	RDZ08- N -1041		<u>25</u>	
RDZ09- S -1041		26		RDZ09- N -1041		27_	
RDZ10-S -1041				RDZ10- N -1041		20	
RDZ11-S -1041		24		RDZ11- N -1041		22	
RDZ12- S -1041		28		RDZ12- N -1041		26_	
RDZ13- S -1041		24		RDZ13- N -1041		25_	
RDZ14- \$ -1041		24		RDZ14- N -1041		25_	
RDZ15- S -1041		26		RDZ15- N -1041		27_	
RDZ16-\$ -1041		24		RDZ16- N -1041		30_	
RDZ17-\$ -1041		20_		RDZ17- N -1041		23_	
RDZ18- \$ -1041		20		RDZ18- N -1041		32	
RDZ19- \$ -1041 RDZ20- \$-1041 RDZ21- \$ -1041		24 25 21		RDZ19- N -1041 RDZ20- N-1041 RDZ21- N -1041		2 G 26 25	
# of Samples:				# of Samples:]
Day D.S. 1						04470	101.23



Sampled Address: 3560 JACKSON ST	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from sinumber of stories, roof overhand (measured if piecesence of gutters, location of downspouts and Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, multiple for the position of the piecesence of the potential photos will be taken at each DZ sampling other observations that could impact the potential	ossible) and distance from ground to soffit. drainage swales. ch, bare ground, visible paint chips, etc. E, W).	s to develop.	
			:
	ें दे		
EQ			
		De De	OWNSPOUT (TYP)
		u	
	3560 JACKSON ST		· · · · · · · · · · · · · · · · · · ·
		; ;;	
		Ť : :	· · ·
	8 = 1	b	
A. Positive			
B.3Story 30'-3' C. YES D. PAINT	JACKSON ST		
F POOR	;		· ·
F. South-GRASS - North-GRAS G. South - North			
H. VES I PAINT Chips ARDUND FOUNC	iation:		<u>;</u> ;
The state of the s			
	· · · · · · · · · · · · · · · · · · ·		
			046141

スロンコー High Drip Zone Recontamination Study

١			
ı	шш		

In Situ Samp	les Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit:		_		O Book: 2/8	ASR:		
Date: Staff:		Date:		. <i>0</i> 8 Time: <u>. Pm</u>	Samples:		
RYC SCPXA- 1587				RYDSCPXA-158	7: 198		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- № -1587		29		RDZ01- \$ -1587		30_	
RDZ02- ₩ -1587		41		RDZ02- 5 -1587		21	
RDZ03- N -1587		_32_		RDZ03- 5 -1587		22_	
RDZ04- № - 1587		26		RDZ04- 5 -1587		22	
RDZ05- № -1587		20		RDZ05- \$ -1587		20	
RDZ06- № -1587		23		RDZ06- 5 -1587		26_	
RDZ07- N -1587		24		RDZ07- 5 -1587		27_	
RDZ08- № -1587		_27_		RDZ08- 5 -1587		23	
RDZ09- № -1587		22		RDZ09- S -1587		26	
RDZ10- N -1587		36		RDZ10- 5 -1587		22_	
RDZ11- / V -1587		22		RDZ11- 5 -1587			
RDZ12- / V -1587		29		RDZ12- 5 -1587		25	
RDZ13- № -1587		19	¥	RDZ13- 5 -1587		_28_	¥
RDZ14- № -1587		21		RDZ14- 5 -1587		22	
RDZ15- N -1587		24		RDZ15- 5 -1587		23_	
RDZ16- № -1587		24		RDZ16- 5 -1587		20	
RDZ17- N -1587		26		RDZ17- 5 -1587		21	
RDZ18- № -1587		2o		RDZ18- 5-1587		_27_	
RDZ19- N -1587		25_		RDZ191587			
RDZ20- W -1587		18		RDZ201587			
# of Samples:				# of Samples:			



	Sampled Address: 813 FRANCES ST	Omaha Lead Site — Site Sketch	Exterior Paint Good	North Arrow						
1	Phone:	-	Poor ☐ Not paint	1						
b. c. d. e. f.	Site grading and drainage (positive [away from structure] or negative). Number of stories, roof overhang (measured if possible) and distance from ground fo soffic. Presence of gutters, location of downspouts and drainage swales. Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc. DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling location. Additional photos may be taken.									
i. (Other observations that could impact the potential for elevat	ted soil lead concentrations in drip zones	to develop.							
:		<u> </u>	A.) POSITIV B.) Z STORY-							
:			D) PAINT E) POOR							
:.	POWNSPOUT		F) N - BARE G) NORTH - H) YES	SOUTH						
•		оитн)	C) PAINT	CHIPS IN DZ						
:	813. F	FRANCES ST	FOUNDATION	N. WALL						
		(NORTH)								
:		0,0,0,1,1								
		9/12,	OWNSPOUT							
		<u></u>								
:	<u>.F.R.A.</u>	NCES ST								
: : :										
Re	NRS-1			046141.0123						

Appendix C.2
Completed Field Sheets for Properties Sampled After Paint Stabilization

In Situ Samp	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed		
XRF Unit: Date: Staff:	Time:		1.08-	10 Book: 218 08 Time: Pm	ASR: Samples:		
RYBSCPXA · 10271	21			RYCSCPXA · 10271	24		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-S -10271		32		RDZ01- N -10271	walk		
RDZ02-S -10271		76		RDZ02- V -10271	walk		
RDZ03-\$ -10271		2.4		RDZ03- N -10271	Walk		
RDZ04-\$ -10271		29		RDZ04- N -10271	walk		
RDZ05-S -10271		21		RDZ05- N -10271	walk		
RDZ06-\$ -10271		27		RDZ06- N -10271	Walk		
RDZ07- 3 -10271		42		RDZ07- N -10271		<u> 34</u>	
RDZ08-\$ -10271		39		RDZ08- N -10271		_32_	
RDZ09-\$ -10271		165		RDZ09- N -10271		_28_	
RDZ10-S -10271	WALK_			RDZ10- N -10271		29	
RDZ11-\$ -10271	WALK			RDZ11- N -10271		28	
RDZ12-\$ -10271	WALK			RDZ12- N -10271		21.	
RDZ13-\$ -10271	_WALK_			RDZ13- N -10271		23	
RDZ14-\$ -10271		_50_		RDZ14-N -10271			
RDZ15-\$ -10271		145		RDZ15- N -10271		_21_	
RDZ16-\$ -10271		24		RDZ16-N -10271		26_	
RDZ17- \$ -10271		27	d	RDZ17- N -10271		_19_	
RDZ18- S -10271		24		RDZ18- N -10271		27	
RDZ19-\$ -10271 RDZ20-\$ -10271 RDZ21-\$ -10271		20 21 25		RDZ19- N -10271 RDZ20 - N -10271 RDZ21 - N -10271		24 28 28	国 回 回
# of Samples:				# of Samples		-	.]
other						04470	1 01 23



Sampled Address: 1606 MISSOURI AV Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure b. Number of stories, roof overhang (measured if possible) c. Presence of gutters, location of downspouts and drainag d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location i. Other observations that could impact the potential for ele	p'and distance from ground fo soffit. ge swales. ge ground, visible paint chips, etc. n. Additional photos may be taken.	s to develop.	
	9		
	WALK	<u> </u>	
<u></u>	CONE	DOWNS	
		(TYP))
· · · · · · · · · · · · · · · · · · ·			
	1606 Missouri AV		
		Man	
		9	
A. NEGATIVE. B. 2 Story. 20-2' C. VES D. PAINT	(f. 2)		
E. Good F. South - Grass - WALK- NORTH - GRASS G. South - North	Missouri AV		. :
H. YES I.NONE			
other	;		

In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	_	·08·	08 Time: Am	ASR:		- 1
RYBSCPXA - 16811 _	38			RYCSCPXR - 16811	28		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-€ -16811	WALK			RDZ01-W -16811	WALK		
RDZ02-£ -16811	WALK			RDZ02-W -16811	WALK		
RDZ03-E -16811	WALK			RDZ03-W -16811	WALK		
RDZ04- E -16811	WALK			RDZ04-W -16811	WAIK		
RDZ05-£ -16811	WALK			RDZ05-W -16811		180	
RDZ06-£ -16811	WALK			RDZ06- W -16811		65	Ø
RDZ07-£ -16811	walk			RDZ07-₩ -16811		<u>57</u>	
RDZ08-E -16811		45		RDZ08-W -16811		_67_	
RDZ09-Æ -16811		_41_		RDZ09-W -16811		_60_	
RDZ10-£ -16811		29		RDZ10-W -16811		121	
RDZ11-E -16811		29		RDZ11-W -16811		_53_	
RDZ12-€ -16811		25		RDZ12-W -16811		94	
RDZ13-Æ -16811		28		RDZ13-W -16811		49	
RDZ14-£ -16811		90		RDZ14-W -16811		43_	
RDZ15-Æ -16811		32		RDZ15-W -16811		101	
RDZ16- E -16811		_28_		RDZ16- W -16811		136	
RDZ17-E -16811		_28_		RDZ17- W -16811		_54_	
RDZ18-Æ -16811		_30_		RDZ18-W -16811		27	
RDZ19-£ -16811 RDZ20-E-16811 RDZ21-E-16811		28 25 22		RDZ19-W -16811 RDZ20-W-16811 RDZ21-W-16811		54 30 61	
# of Samples:				# of Samples:			
other						044701	1 01 23



Sampled Address: 2440 S 19 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
L. Site grading and drainage (positive [away from b. Number of stories, roof overhand (measured if c. Presence of gutters, location of downspouts and Exterior finish. 2. Paint condition and XRF results. 3. DZ features such as presence of vegetation, multiple DZ sample locations and wall orientation (N. S.)	possible) and distance from ground to soffit. d drainage swales. ulch, bare ground, visible paint chips, etc. E, W).		
Digital photos will be taken at each DZ sampling. Other observations that could impact the potential.	g location. Additional photos may be taken. ial for elevated soil lead concentrations in drip zones:	to develop.	
	(B-1)		
	CONC	Dow (T	NSPOUT YP)
X X		MAK	
CONC			
A'maile —	MATK (5-7)	-	
A Postive B 2 Story 20:-2' C YES D PAINT	<u>S195+</u>		:
E. Good F. East Grass West - Grass G. East — West H. Yes			
I. None			
L.			01614.01

In Situ Samples Analyzed Ex Situ Sam		ples Analyzed	Lab Samp	oles Analyzed			
XRF Unit:		_ ı _		10 Book: 219		Date:	
Date: Staff:		Date: <u></u> Staff:		28 Time: <u>Am</u>	Samples:		_
RYBSCPXA-28447_	25			RYOSCPXA-20447 :_	24		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- S -28447		22		o RDZ01- N -28447		22	
RDZ02-5 -28447		<u>43</u>		RDZ02- N -28447		24	
RDZ03-S -28447		<u>48</u>		RDZ03- N -28447		28	
RDZ04- S -28447		<u>54</u>		RDZ04- N -28447		27	
RDZ05-\$ -28447		_54_		RDZ05- N -28447		41	
RDZ06-\$ -28447		72		RDZ06- N -28447		44	
RDZ07- S -28447		_11_		RDZ07- N -28447		34	
RDZ08-S -28447		104		RDZ08- N -28447		25_	
RDZ09-S -28447	WALK	-		RDZ09- N -28447		26	
RDZ10-\$ -28447	WALK			RDZ10- N -28447		36	
RDZ11- S -28447	WALK			RDZ11- N -28447		32	
RDZ12- \$ -28447	WALK			RDZ12- N -28447		40	
RDZ13- \$ -28447	Walk			RDZ13- N -28447		<u>33</u>	
RDZ14- S -28447		<u>336</u>		RDZ14- N -28447		<u>33</u>	
RDZ15-S -28447		78_		RDZ15- N -28447			
RDZ16-\$ -28447		<u>47</u>		RDZ16- N -28447		18	
RDZ17- \$ -28447		46		RDZ17- N -28447		30_	
RDZ18- \$ -28447		29		RDZ18- N -28447		26	
RDZ19- \$ -28447		51		RDZ19- N -28447		21	\square
RDZ20- \$ -28447		29	ব	RDZ20- N -28447		19	
# of Samples:				# of Samples:			
S-21 -	25		***************************************	N-21 - 2	28	04470	1 01 23



Sampled Address: 1616 WILLIS AV Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure b. Number of stories, roof overhang (measured if possible) c. Presence of gutters, location of downspouts and drainag d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location i. Other observations that could impact the potential for ele-	and distance from ground to soffit. ground, visible paint chips, etc. Additional photos may be taken.	: : : :to develop.	
	# 10, 10 () () () () () () () () () (:	
		Down	(Spout YP)
		53	:
16	16 WILL'S AV	ALK	
		∆ ≯	:
			;
A 1/5 A 1 / 1	WALK		
A NEGATIVE B 3 Story 30 - 3' C. VES D PAINT	10,	<u> </u>	
	WILLIS AV		
H. YES I PAINT Chips AREUND FOUNDATION			

In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit:				10 Book: 219		Date:	_
Date: Staff:	Time:	Staff:		-06 Time: <u>Am</u>	Samples:	· r	
RYASCPXA 29876	19		<u> </u>	RYBSCPXA 29876	19		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-£ -29876		2632		RDZ01- N -29876	S	298	
RDZ02- £ -29876		76		RDZ02- N -29876	S	114	
RDZ03- £ -29876		34		 RDZ03- N -29876	·	_100_	
RDZ04-€ -29876				RDZ04- N -29876	S	36	
RDZ05-Æ -29876		42		RDZ05- N -29876	S	<u> 38</u>	
RDZ06-£ -29876		_50		RDZ06- N -29876		26	
RDZ07-£ -29876		47		RDZ07- N -29876	<u> </u>	42	
RDZ08-£ -29876		303		RDZ08- N -29876	<u> </u>	727	
RDZ09-モ -29876	WALK			RDZ09- N -29876	·	36	
RDZ10- E -29876	WALK			RDZ10- N -29876		25	
RDZ11-€ -29876	WALK			RDZ11- N -29876		26	
RDZ12-€ -29876		56		RDZ12- N -29876		24	
RDZ13- € -29876		30_		RDZ13- N -29876		25	
RDZ14-£ -29876		23		RDZ14- N -29876		26	
RDZ15- E -29876		33		RDZ15- N -29876		2 _	
RDZ16-£ -29876		23		RDZ16- N -29876		29	
RDZ17- ₺ -29876		25		RDZ17- N -29876		14	
RDZ18-€ -29876		21		RDZ18- N -29876		18	
RDZ19- € -29876		16	4	RDZ19- V -29876		18	図
RDZ20-E -29876		22		RDZ20- 从 -29876		20_	
# of Samples:				# of Samples:			
S-04-[.a						0.447.01	10173

	Sampled Address: 2820 N 19 AV Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
b. c. d. e.	Site grading and drainage (positive [away from st Number of stories, roof overhang (measured if po Presence of gutters, location of downspouts and Exterior finish. Paint condition and XRF results.	ssible) and distance from ground to soffit. drainage swales.		•
g. h.	DZ features such as presence of vegetation, mulc DZ sample locations and wall orientation (N, S, E Digital photos will be taken at each DZ sampling Other observations that could impact the potential	, W).	no develop.	·
			A	OWNSPOUT (TYP)
		2820 N.19 AV		*
		. :	D =	
			10'	→ · · · · ·
	A. NEGATIVE B. 2 SIORY 20-2'	WALK	(F-2)	!
	C. YES D. PAINT E Good	(F-1)		
	FEAST GRASS WALK NOAM GRASS GEAST - NORTH H. YES I. NONE	N 19 AV		
4	04-[a			0461.41.01.23

In Situ Samp	In Situ Samples Analyzed Ex Situ Sam			ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit:	_	_		10 Book: 219 - 08Time: Pho	ASR: Samples:		
Date: Staff:		Date:		· ·	Samples.		
RYBSCPXA 30049	31			RYD5CPXA 30049	43		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- S -30049		860		\int_{6}^{0} RDZ01- \mathcal{E} -30049		_71_	
RDZ02- S -30049		176		RDZ02- £ -30049		56	
RDZ03-\$ -30049		76		RDZ03- £ -30049			
RDZ04-\$ -30049		92		RDZ04- E -30049		<u> 58</u>	
RDZ05-\$ -30049		39_		RDZ05-£ -30049		147	
RDZ06-\$ -30049		25_		RDZ06- <i>E</i> -30049		101	
RDZ07- S -30049		29		RDZ07- E -30049		82	
RDZ08-S -30049		43		RDZ08-£ -30049		104	
RDZ09-S -30049		33_		RDZ09-Æ -30049		47	
RDZ10-\$ -30049		23_		RDZ10- E -30049		<u>33</u>	
RDZ11- S -30049		26		RDZ11-E -30049		_51_	
RDZ12-\$ -30049		42		RDZ12-E -30049		_38_	
RDZ13-S -30049		<u>23</u>		RDZ13-E -30049		_33_	
RDZ14-S -30049		29		RDZ14-E -30049		36_	
RDZ15- S -30049		24		RDZ15-E -30049		_32_	
RDZ16-\$ -30049		26		RDZ16- E -30049		33	$\mathbf{\nabla}$
RDZ17-\$ -30049		_35_	J	RDZ17-£ -30049		_37_	
RDZ18-S -30049		_27_		RDZ18- E -30049		22	
RDZ19-S -30049		26		RDZ19- E -30049		_34_	
RDZ20-\$ -30049		24_		RDZ20- E -30049		34_	
# of Samples:				# of Samples:			
S-21 - 2 S-05-La	21			E-21 - 1	55	04476	01.01.23



	Sampled Address: 1810 LOCUST ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
b.c.d.e.f.g.h.	Site grading and drainage (positive [away from st. Number of stories, roof overhang (measured if positive presence of gutters, location of downspouts and Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulc. DZ sample locations and wall orientation (N, S, E) Digital photos will be taken at each DZ sampling Other observations that could impact the potential	essible) and distance from ground to soffit. drainage swales. ch, bare ground, visible paint chips, etc.	o develop,	
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; ;				. :
,				1
			(B-2	→ • • • • • • • • • • • • • • • • • • •
ľ			(B-Z	7 :
		1810 Locust St		
				:
	ANEGATIVE	. :		· :
	B 2 Story 20'-2'		···	,
	C.NONE	, o a		
	D. PAINT E Good			;
	F. GRASS-AND PAINT Chips			9
	G. South-East			
	H. YES I NO GUHER OR DOWNSPOU	Locust St		
	AND PAINT Chips AROUND FO	undation		

In Situ Samp	les Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	\neg
XRF Unit: Date: Staff:	Time:	_	9.08	<u>o</u> Book: <u>218</u> -oβTime: <u>Pm</u>	ASR: Samples:	Date:	
eyascPlai3688 :	21		-	RYDSLPXA -33688	238		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- £ -33688		900		RDZ01- V -33688		40	
RDZ02- £ -33688		118		RDZ02- N -33688		_25_	Ø
RDZ03- E -33688				RDZ03- N -33688		3	
RDZ04- 足 -33688				RDZ04- N -33688		113	
RDZ05- € -33688		470		RDZ05- N -33688		8	
RDZ06- € -33688		487		RDZ06- N -33688		69_	
RDZ07-Æ -33688		397		RDZ07- N -33688		61	
RDZ08-E -33688	<u>*************************************</u>	786		RDZ08- N -33688		35	
RDZ09-E -33688	WALK			RDZ09- N -33688		26	
RDZ10-₺ -33688	WALK			RDZ10- N -33688		29	
RDZ11-E -33688	WALK			RDZ11- N -33688		25	
RDZ12-E -33688	WALK			RDZ12- N -33688		_22_	
RDZ13-E -33688		216		RDZ13- N -33688		18	
RDZ14-E -33688		63_		RDZ14- N -33688		25	
RDZ15- £ -33688		<u> 38</u>		RDZ15- N -33688		31	
RDZ16-£ -33688		<u>35</u>		RDZ16-N -33688		27	
RDZ17-£ -33688		_27_		RDZ17-N -33688		25_	
RDZ18-E -33688		_34_		RDZ18-N -33688		24	
RDZ19-E -33688 RDZ20-E-33688 RDZ21-E-33688		36 30 32		RDZ19-N -33688 RDZ20-N-3368 RDZ21-N-3368		20 19 22	
# of Samples:				# of Samples:	The same was a second		
ark ar							



Sampled Address: 3930 N 19 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from shumber of stories, roof overhand (measured if presence of gutters, location of downspouts and exterior finish. Paint condition and XRF results. Z features such as presence of vegetation, multiple such as presence of vegetation (N, S, Digital photos will be taken at each DZ sampling ther observations that could impact the potentia	possible) and distance from ground to soffit. d drainage swales. ulch, bare ground, visible paint chips, etc. E, W).		
: : : : : : : : : : : : : : : : : : : :	1 3 3		
	· · · · · · · · · · · · · · · · · · ·		
) 1		0: 45	
		Downspout (TYP)	
	β		
· · · · · · · · · · · · · · · · · · ·		Т р -	* * * * * * * * * * * * * * * * * * *
	, , , , , , , , , , , , , , , , , , , ,		
	, , , , , , , , , , , , , , , , , , , ,		4.
	2001/1001	(B·2)	,
	3930 N.19St	(52)	
₩		,	
			: :
			:
· · · · · · · · · · · · · · · · · · ·			···.
) hai	:
	H :	M	
ANECATIVE	WALK	:	:
β 2 Story 20-2	2 7		
C YES			
D. PAINT E. Good	11001	•	: .
F. EAST WALK+GRAGS NORTH - GR	PASS N 19 St		. :
G. EAST - North			; ;
H. YES.		· · · · · · · · · · · · · · · · · · ·	
I. NONE		:	· :
,	· · · · · · · · · · · · · · · · · · ·	<i>:</i>	
•	:		
			0.444.0132

In Situ Samples Analyzed Ex Situ Sa			tu Sam	ples Analyzed Lab Samples Analyzed			\neg
XRF Unit: Date: Staff:	Time:	_		D Book: <u>219</u> 08 Time: <u>Am</u>	ASR: Samples:		_
RYASCPXA:3341_				RYDSCPXA-33941	22		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- W -33941		_113_		RDZ01- £ -33941		73	
RDZ02-W -33941		_32_		RDZ02- £ -33941		26	
RDZ03- W -33941		30		RDZ03- £ -33941		25	
RDZ04-W -33941		30		RDZ04- £ -33941		19	
RDZ05- W -33941		37		RDZ05- & -33941		21_	
RDZ06-W -33941		_27_		RDZ06- £ -33941		18	
RDZ07- W -33941		23		RDZ07- E -33941		_23_	
RDZ08- W -33941		22		RDZ08- £ -33941		_15	
RDZ09- W -33941		34		RDZ09- E -33941		_31_	
RDZ10-W -33941		26		RDZ10-E -33941		29	
RDZ11-W -33941		32		RDZ11- E -33941		_22_	
RDZ12- W -33941		28		RDZ12- E -33941		27_	
RDZ13- W -33941		<u>35</u>		RDZ13-₺ -33941		25	
RDZ14- W -33941		19		RDZ14- E -33941		_21_	
RDZ15- W -33941		_28_		RDZ15- E -33941		20_	
RDZ16- W -33941		_18_		RDZ16- £ -33941		22	র্ত্র
RDZ17- W -33941		_23_		RDZ17- £ -33941		21	
RDZ18- W -33941		24_	☑ ,	RDZ18-E -33941		18_	
RDZ19- W -33941		25		RDZ19- E -33941		20	
RDZ20- W -33941		19		RDZ20-E -33941		20	
# of Samples:				# of Samples:			
21·W -	16	lauran unannud			27	04450	1 01 23



Sampled /	Address: <u>4121</u> F	LORENCE BD	Omaha L Site S		Exterior Paint Good Poor Not paint	4
 b. Number of sto c. Presence of gu d. Exterior finish. e. Paint condition 	ries, roof overhang utters, location of do n and XRF results.	e [away from structure] (measured if possible) wnspouts and drainage	and distance from gro e swales.			
g. DZ sample loc h. Digital photos	ations and wall orie will be taken at eac	egetation, mulch, bare ntation (N, S, E, W). h DZ sampling location act the potential for elev	. Additional photos m	ay be taken.	es to develop.	
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					Downs (TY)	0)
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A. NEG	ALUE	8		53		4
D 2 SH	DRY 20-2'	<i>V</i> L		 	•	:
0,200	1 20-Z	目				
U. YES	ue + Panint		`_	7.		
D. SIRIN E GOO			2	i i		,
F. GRA				<u>k</u>	:	
		1				
	t-EAST	FLOR	Rence Bd			
H. YES						
ININ	IE.					

In Situ Samples Analyzed Ex S			tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	_	7.08	0 Book: <u>218</u> -08 Time: <u>Am</u>	ASR:		
RYCSCPX R-34823:	20			RY05CPXA-34823	22		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- S -34823		285		RDZ01- W -34823		95	
RDZ02- S -34823		48_		RDZ02- W -34823	3		
RDZ03- \$ -34823		34	র	RDZ03- W -34823		_181_	
RDZ04- S -34823		<u>33</u>		RDZ04- W -34823			
RDZ05-S -34823		33		RDZ05- W -34823		83	
RDZ06-\$ -34823		_54_		RDZ06- W -34823	3	92	
RDZ07-\$ -34823		28_		RDZ07- W -34823		46	
RDZ08-S -34823		22_		RDZ08- W -34823	3	43_	
RDZ09-S -34823		28_		RDZ09- W -34823		53	
RDZ10-\$ -34823		27		RDZ10-W -34823		29	
RDZ11-S `-34823		25_		RDZ11-W -34823		_29	
RDZ12-S -34823		25_		RDZ12- W -34823	<u> </u>	40	
RDZ13-S -34823		26		RDZ13-W -34823		23	
RDZ14-S -34823		24_		RDZ14- W -34823		28	
RDZ15-\$ -34823		27		RDZ15-W -34823	3	30	
RDZ16-S -34823		15		RDZ16- W -34823		20	
RDZ17-\$ -34823			□ ,	RDZ17- W -34823		_27	
RDZ18-S -34823		22_		RDZ18- W -34823	3	_27	
RDZ19-\$ -34823 RDZ20-S-34823 RDZ21-S -34823		20 21 23		RDZ19- W -34823 RDZ20-W-3482 RDZ21-W -34823	3	29 23 23	<u> ROD</u>
# of Samples:				# of Samples:			
other						0447	701 01 23



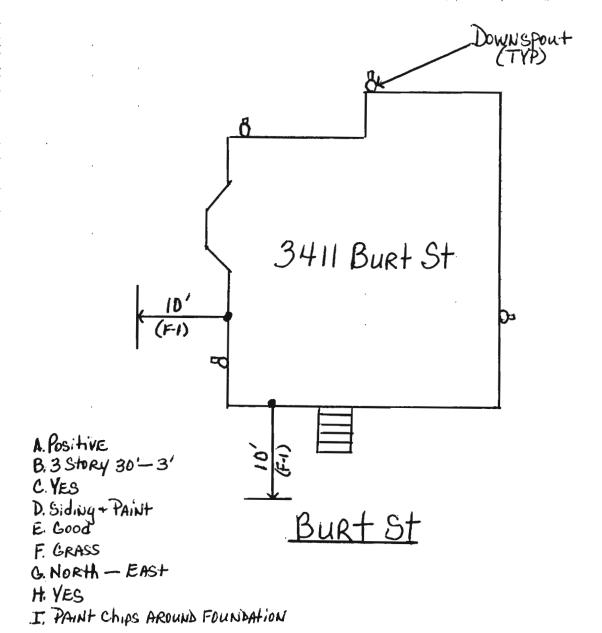
Sampled Address: 4616 N 29 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from struct b. Number of stories, roof overhang (measured if possic. Presence of gutters, location of downspouts and drad. Exterior finish. e. Paint condition and XRF results.	ible) and distance from ground to soffit.		
f. DZ features such as presence of vegetation, mulch, g. DZ sample locations and wall orientation (N, S, E, V h. Digital photos will be taken at each DZ sampling loc i. Other observations that could impact the potential for	V). ation. Additional photos may be taken.	to develop.	
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	0/ (g)	: ;	
	9		
(B-1)		Do	wnspout (Typ)
			•
	4616 N. 29 St		•,
	7610 N.Z.I JI		
	····, ····	h :	
A. NEGATIVE B. 2 Story 20-2' C. YEB	. =	b	
D. PAIN'T E. Good F. South-Crass - West Grass	N ao c L		
C. South-West H. Yes I. Paint Chips Around Foundat	N. 29 ST		
	; 		
other			. 0461+1 012

In Situ Samples Analyzed Ex		Ex Si	Ex Situ Samples Analyzed		Lab Samples Analyzed		
XRF Unit: Date: Staff:	Time:		7 - 18 -	O Book: 219 OB Time: Am	ASR: Samples:		
RYASCPXA-24467 14							
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -24467		113		RDZ01- £ -24467		_50_	
RDZ02- N -24467		79_		RDZ02- E -24467		28_	
RDZ03- N -24467		<u>55</u>		RDZ03- £ -24467		26	
RDZ04- N -24467		_39_		RDZ04- E -24467		39	
RDZ05- N -24467		_54		RDZ05-E -24467		25	
RDZ06- N -24467		34		RDZ06- E -24467		26	
RDZ07- N -24467		41		RDZ07- E -24467		24	
RDZ08- \ -24467		30_		RDZ08- E -24467		19	
RDZ09- V -24467		34		RDZ09- E -24467		22_	
RDZ10- 以 -24467		<u>23</u>		RDZ10- E -24467		23	
RDZ11- N -24467				RDZ11- E -24467		21	
RDZ12- V -24467		_26_		RDZ12- E -24467		36	
RDZ13- N -24467		28		RDZ13- E -24467		<u>35</u>	
RDZ14- N -24467		29		RDZ14- E -24467		22	
RDZ15- N -24467		22		RDZ15- E -24467		21	
RDZ16- N -24467		28	d	RDZ16- ₭ -24467		16	
RDZ17- N -24467		<u>47</u>		° RDZ17- ₺ -24467		27	
RDZ18- N -24467		20		RDZ18- ₺ -24467		24	
RDZ19- N -24467 RDZ20-N-24467 RDZ21- N -24467		29 [] 23		RDZ19- E -24467 RDZ20- E -24467 RDZ21- E -24467		25 22 19	
# of Samples:				# of Samples:			
extra2						04470	1 01 23



Sampled Address: 3411 BORT ST Site Sketch Phone: Not paint	Sampled Address: 3411 BURT ST	Poor	North Arrow
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- Site grading and drainage (positive [away from structure] or negative)
- b. Number of stories, roof overhang (measured if possible) and distance from ground to soffit.
- c. Presence of gutters, location of downspouts and drainage swales.
- d. Exterior finish.
- e. Paint condition and XRF results.
- f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc.
- g. DZ sample locations and wall orientation (N, S, E, W).
- h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken.
- i. Other observations that could impact the potential for elevated soil lead concentrations in drip zones to develop.



In Situ Samp	les Analyzed	Ex Si	tu Samı	oles Analyzed	Lab Samp	oles Analyzed	$\overline{}$
XRF Unit:	_	_ .		Book: 219	ASR: Samples:		
Date: Staff:	1IIIIe	Staff: ^					_
RYBSCPXA 2734B	54			RYDSCPXA - 27346	3 15		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- W -27348		87		RDZ01- E -27348		_39_	
RDZ02- W -27348		19		RDZ02- <i>E</i> -27348		3	
RDZ03- W -27348		<u> 25</u>		RDZ03- E -27348		27	
RDZ04- W -27348		24		RDZ04- E -27348		23	
RDZ05- W -27348		19		RDZ05-E -27348		_34_	
RDZ06- W -27348		23_		RDZ06- <i>E -</i> 27348		159	
RDZ07- W -27348		28		RDZ07- E -27348		102	
RDZ08- W -27348		185		RDZ08- E -27348		<u>69</u>	
RDZ09- √ -27348		524		RDZ09- E -27348		142	
RDZ10-₩ -27348		743		RDZ10-£ -27348		152	
RDZ11- W -27348		689		RDZ11- £ -27348		264	
RDZ12- W -27348		245		RDZ12- £ -27348		_130_	
RDZ13- ₩ -27348		407		RDZ13- E -27348		126	ᅜ
RDZ14- W -27348		_60	d	RDZ14- E -27348		129	
RDZ15- W -27348		_55		RDZ15- Æ -27348		68_	
RDZ16- W -27348		32		RDZ16- £ -27348		87	
RDZ17- W -27348		_22_		RDZ17- £ -27348		46	
RDZ18- W -27348		28_		RDZ18- E -27348		64_	
RDZ19-W -27348 RDZ20-W-27348 RDZ21-W-27348		32 31 29		RDZ19-E -27348 RDZ20-E-2734 RDZ21-E -27348		56 55 52	
# of Samples:				# of Samples:			
2						04430	10123



Sampled Address: 2021 N 20 Phone:	Omaha Lead Site Site Sketch		Exterior Paint Good Poor Not paint	North Arrow
 c. Presence of gutters, location of down d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vege g. DZ sample locations and wall orienta h. Digital photos will be taken at each D 	easured if possible) and distance from ground to soffit. nspouts and drainage swales. etation, mulch, bare ground, visible paint chips, etc.	,	develop.	
· · · · · · · · · · · · · · · · · · ·	,00	(8.2)	_Downsf (TYP:	out
	2021N 20 ST	+ [
A. NEGATIVE B. 2 Story 20'- 2 C. YES D. PAINT	10' (F.2)		•	
E Good F. GRASS G. WEST — EAST H. YES T. PAINT Chios AROUN	N20ST			

Drip Zone Recontamination Study 2005 MEDIUM



29669

In Situ Samp	les Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit:				0 Book: 219	ASR:		_
Date: Staff:		Date: <u>9</u> Staff: <u></u>		<u>08</u> Time: <u>₽m</u>	Samples:		_
RYA S C PXA 2966	417			RYBSCPXR . 296	9 102	_	
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- S -29669		103		o RDZ01- E -29669)	_50_	
RDZ02-\$ -29669		56_		RDZ02- £ -29669		45	
RDZ03-\$ -29669				RDZ03- Æ -29669		69	
RDZ04-\$ -29669		_45		RDZ04- £ -29669)	151	
RDZ05-\$ -29669		_47_		RDZ05- £ -29669		22_	
RDZ06-\$ -29669		252		RDZ06- £ -29669		_29	
RDZ07-\$ -29669	WALK			RDZ07- £ -29669		_22_	
RDZ08-\$ -29669	WALK			RDZ08- £ -29669		_30_	
RDZ09-\$ -29669	WALK			RDZ09- £ -29669		33	
RDZ10-S -29669		67		RDZ10- F -29669		23	
RDZ11- S -29669		30_		RDZ11- E -29669		_30_	
RDZ12- S -29669		19		RDZ12- E -29669		26	Ø
RDZ13-S -29669		19	v	RDZ13- E -29669		<u> 38</u>	
RDZ14-\$ -29669		25		RDZ14- E -29669		25	
RDZ15- S -29669		30_		RDZ15- £ -29669		_52_	
RDZ16- S -29669		24_		 RDZ16- ₺ -29669		18	
RDZ17-\$ -29669		26		RDZ17- F -29669		24	
RDZ18- S -29669		128		RDZ18- £ -29669		28_	
RDZ19-5 -29669 RDZ20-5-2%69 RDZ21-5 -29669		184		RDZ19- £ -29669 RDZ20-E-29669	·	38 31 28	
# of Samples:				# of Samples:			
extra2						0447(01,01 23



Sampled Address: 4276 BINNEY ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure] of the control of th	and distance from ground to soffit. swales. ground, visible paint chips, etc. Additional photos may be taken.	to develop.	
•		70	10 Paut
	:	שליק	WNSPOUT (TYP)
		rk	
	BINNEY ST	10' (F-2)	

In Situ Samp	oles Analyzed	Ex S	itu Samı	oles Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:		9.04.		ASR: Samples:	Date:	_
RYCSCPXR 30055	.30		1 100 100	:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -30055		80		RDZ01- W-30055		43	
RDZ02- N -30055		<u>65</u>		RDZ02-₩ -30055		55_	
RDZ03- N -30055		61		RDZ03- W -30055		40_	
RDZ04- N -30055		29		RDZ04- W -30055		25	
RDZ05- № -30055		<u>35</u>		RDZ05- W -30055		26_	Ø
RDZ06- N -30055		30_	Ø	RDZ06- W -30055		26	
RDZ07- N -30055		29		RDZ07- W -30055		38	
RDZ08-N -30055		31		RDZ08-₩ -30055		38	
RDZ09- N -30055		33_		RDZ09-W -30055		37_	
RDZ10-N -30055		28		RDZ10- W -30055		26	
RDZ11- N -30055		29		RDZ11- ₩ -30055		35_	
RDZ12- N -30055		32	اً 🗖	RDZ12- W -30055		34_	
RDZ13-N -30055		26	_ j	RDZ13-₩ -30055		24_	
RDZ14- N -30055		24		RDZ14- W -30055		49	
RDZ15- N -30055		_22_	اً 🗖	RDZ15-₩-30055		179	
RDZ16- N -30055		2.3		RDZ16- W -30055		267	
RDZ17- N -30055		_38_		RDZ1730055			
RDZ18- N -30055		29		RDZ1830055			
RDZ19- N -30055		29		RDZ1930055			
RDZ20-N-30055 RDZ21-N-30055		<u>22</u> <u>23</u>		RDZ2030055			
# of Samples:				# of Samples:			
other						044701	10123



Sampled Address: 4102 WIRT ST	Omaha Lead Site Site Sketch	Exterior Paint Good Poor	North Arrow
Phone:		☐ Not paint	
a. Site grading and drainage (positive [away from b. Number of stories, roof overhang (measured if c. Presence of gutters, location of downspouts and Exterior finish. e. Paint condition and XRF results.	possible) and distance from ground (o'soffit.	Not paint	
f. DZ features such as presence of vegetation, mug. DZ sample locations and wall orientation (N, S, h. Digital photos will be taken at each DZ samplin i. Other observations that could impact the potential	E, W).	to develop.	
	人 : : : : ·		
01	19	DOWNSPO	u+
8		Downspo (TYP)	
7'-6"	5	, , , , , , , , , , , , , , , , , , ,	•
(B-1)			· · · · · · · · · · · · · · · · · · ·
	+102 Wirt St		:
	TIVE WIKT ST	, , , , ,	
			· · · · · · · · · · · · · · · · · · ·
			<u>:</u> :
-d	0 -		<u>i</u> . :
		A. Positive B. I Story	
	Wirt St	C. YES D. Siding	
	· · · · · · · · · · · · · · · · · · ·	e Good F. N. Grass - G. North - V	
	·	H. YES	
	: 	I NONE	
· · · · · · · · · · · · · · · · · · ·			

31060

In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit:				0 Book: 219 08 Time: Am	ASR: Samples:		_
Staff:		Staff: 1					
RYASCPXA:31060_	49			RYDSCPXA:31060	19		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- € -31060	WALK			RDZ01- <i>9</i> -31060		195	
RDZ02- & -31060	WALK			RDZ02-S -31060		78_	
RDZ03- Æ -31060	WALK			RDZ03-S -31060		<u>59</u>	$\mathbf{\nabla}$
RDZ04- £ -31060	WALK			RDZ04- 9 -31060		74	
RDZ05- Æ -31060	WALK			RDZ05- S -31060		41_	
RDZ06- E -31060	WALK			RDZ06-5 -31060		<u> 38</u>	
RDZ07- Æ -31060	WALK			RDZ07-\$ -31060		<u>54</u>	
RDZ08- € -31060	WALK			RDZ08- \$ -31060		36	
RDZ09- € -31060		1445		RDZ09-S -31060		_35_	
RDZ10- E -31060		<u> 386</u>		RDZ10-\$ -31060		<u> 35</u>	
RDZ11- E -31060		46		RDZ11-\$ -31060		3	
RDZ12- E -31060		46		RDZ12- \$ -31060		37_	
RDZ13- E -31060		38		RDZ13- S -31060		34_	
RDZ14- £ -31060		<u>35</u>		RDZ14-S -31060		33_	
RDZ15- E -31060		28_		RDZ15-S -31060		39_	
RDZ16- £ -31060		_30_		RDZ16-\$ -31060		<u>40</u>	
RDZ17- 🗜 -31060		37		RDZ17-5 -31060		29	
RDZ18-£ -31060		_32_		RDZ18-S -31060		24	
RDZ19- £ -31060		24		RDZ19-S -31060		<u> 35</u>	
RDZ20- £ -31060		25		RDZ20- S -31060		27	
# of Samples: &-21 <u>25</u>				# of Samples:		onto	1 01 23

	Sampled Address: 3027 EMMET Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor	North Arrow	
П	T HOHO.		☐ Not paint		
b.c.def.g.h	Presence of gutters, location of downspour Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation. DZ sample locations and wall orientation (Digital photos will be taken at each DZ sar	ed if possible) and distance from ground to soffit. ts and drainage swales. n, mulch, bare ground, visible paint chips, etc.	s to develop	:	
:		· · · · · · · · · · · · · · · · · · ·		,	
		· · · · · · · · · · · · · · · · · · ·	<u>† </u>		
		· · · · · · · · · · · · · · · · · · ·	(82)		
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			R	,	
			Don	INSPOUT TYP)	
				: .	
	(F-1)	3027 EMMETST	:	:	
			:	•	
	a a				
		8	3 · · · · · · · · · · · · · · · · · · ·		
	A positive	μ 			
	B. 1 Story 10'—1' C. YES	EMMET ST			
	D. PAINIT E. Good				
	F. CRASS - WALK G. EAST - South	,			
	H. YES I PAINT Chips AROUND FO	DUNDAHON			

In Situ Samp	iles Analyzed	Ex Si	tu Sam	oles Analyzed	Lab Samp	oles Analyzed	
XRF Unit:		- 1		10 Book: 219		Date:	_
Date: Staff:		Date: Staff:		7.08Time: <u>Am</u>	Samples:		
RYDSCPXA-33	212 11	12		RYDSCPXA .33212	1060		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- 5 -33212		259		RDZ01- & -33212		307	
RDZ02- 5 -33212		_131_		RDZ02- £ -33212		<u> 78</u>	
RDZ03- 5 -33212		161		RDZ03- £ -33212		81	
RDZ04- 3 -33212		95		RDZ04- E -33212		142	
RDZ05- S -33212		113		RDZ05-Æ -33212		96	
RDZ06- S -33212		477		RDZ06-E -33212		214	
RDZ07- S -33212		329		RDZ07- E -33212		148	
RDZ08- \$ -33212		_62_	Ø	RDZ08-E -33212		51	
RDZ09- S -33212		_80_		RDZ09-E -33212		97	
RDZ10- S -33212		44		RDZ10-E -33212		118	
RDZ11- S -33212		<u>35</u>		RDZ11-E -33212		96	
RDZ12- S -33212		_ <i>3</i> 3_		RDZ12- E -33212		81	
RDZ13- S -33212		_39_		RDZ13-E -33212		163	
RDZ14- S -33212		<u>48</u>		RDZ14-E -33212		59_	
RDZ15- \$ -33212		<u>45</u>		RDZ15-E -33212	!	<u> 268</u>	
RDZ16- S -33212		48		RDZ16- E -33212	·	<u>49</u>	
RDZ17- S -33212		<u> 38</u>		RDZ17- E -33212		51	
RDZ1833212				RDZ18-E -33212	·	123	
RDZ1933212				RDZ19-E -33212 RDZ20-E-33212		100	囡
RDZ2 0 33212				RDZ21- E -33212		78	
# of Samples:				# of Samples:			rm 20E.720
C 05 N (-						0.1470	1 01 23

046141 0123



Sampled Address: 3911 N 25 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
Site grading and drainage (positive [away from structure Number of stories, roof overhang (measured if possible Presence of gutters, location of downspouts and draina Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, bare) and distance from ground to soffit. ge swales.		
DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling locatio Other observations that could impact the potential for ele	n. Additional photos may be taken.	es to develop.	:
		:	
	en egen er		:
		00	Downspout
		(B-2)	DOWNSPOUT.
*			:
~		8'	
			→
		(B-2)	
er ege		'	
	3911 N 25 St	1 .	
: .	J111 N. ZJ JI.	لہ	
	•		
		. [
.			
		pa ¹	
			,,,,
A NEGATIVE		,	,
B. 2 Story 20'-2'			
C YES			
D. PAINT E Good			
F. GRASS		•	•
G. WEST - EAST - South	N25St		
H. YES	112001		
I PAINT Chips AROUND FOUNDATION			

S-05-Ma

In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	_	7-18-	<u>0</u> Book: <u>219</u> <u>∞</u> Time: <u>A</u> m	ASR:		
RYASCPXA -40063	19	_		Overhang:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- E -40663		119		RDZ01- S -40663			
RDZ02- E -40663		1057		RDZ02- <i>S</i> -40663	LS_		
RDZ03- £ -40663		1810		RDZ03- S -40663	LS_		
RDZ04- E -40663		_ <i>3</i> 32_		RDZ04- S -40663	LS_		
RDZ05- E -40663		17		RDZ05- S -40663	LS_		
RDZ06- E -40663		_24	ָ [֡] ֓֡֡֓	RDZ06-S -40663	3	26	
RDZ07- E -40663		29		RDZ07- S -40663	3	20	
RDZ08- E -40663		_50_		RDZ08- S -40663	<u> </u>		
RDZ09- E -40663		221		RDZ09-\$ -40663	3	45	
RDZ10-E -40663		179	☑ ઁ	RDZ10- S -40663	3	_15_	
RDZ11- E -40663		130	اً 🗖	RDZ11-S -40663	3		
RDZ12- £ -40663		73	اً 🗖	RDZ12-\$ -40663	3	_20_	
RDZ13- E -40663		_52_		RDZ13- S -40663	3	18	
RDZ14- E -40663		188		RDZ14- S -40663			
RDZ15-E -40663		205	اً 🗖	RDZ15-\$ -40663			
RDZ16- E -40663		<u> 155</u>		RDZ16-\$ -40663	3	20_	
RDZ17- E -40663		189	اً 🗖	RDZ17- S -40663	B	_28_	
RDZ18- E -40663		16le		RDZ18- S -40663	·	21	
RDZ19- E -40663		84		RDZ19- \$ -40663		<u>22</u>	
RDZ20-E-40663 RDZ21-E-40663		23		RDZ20 - S - 40663		18	
# of Samples:				# of Samples:			
extra2						04470	υ1 23



Sampled Address: 6742 FLORENCE BD Phone: Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arro
a. Site grading and drainage (positive [away from structure] or negative). b. Number of stories, roof overhang (measured if possible) and distance from ground to soffit. c. Presence of gutters, location of downspouts and drainage swales. d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc. g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken. i. Other observations that could impact the potential for elevated soil lead concentrations in drip zones	to develop.	
29	Downs CTYP	pout)
6742 FLORENCE BIVD		
(F-1)	J	
A. Positive B. 2 Story 20'-2' C. VES		
D. PAINT E. Good F. Grass - LS G. EAST - South		

I PAINT Chips AROUND Foundation

H. YES

In Situ Samples Analyzed Ex Situ Sam				mples Analyzed Lab Samples A		oles Analyzed	=
XRF Unit: Date: Staff:	Time:		9-2	0 Book: 219 4-28 ime: Am	ASR:	Date:	
RYASCPXA · 252	10 114			Overhang:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -25210		73		RDZ01- E -25210)	73	
RDZ02- N -25210		73		RDZ02- £ -25210		59_	
RDZ03- N -25210		67		RDZ03- E -25210		53	
RDZ04- N -25210		45		RDZ04- £ -25210		109	
RDZ05- N -25210		50		RDZ05- £ -25210		73	
RDZ06- N -25210		64_		RDZ06- £ -25210		70_	
RDZ07- N -25210		69		RDZ07- £ -25210		50	
RDZ08- N -25210		176		RDZ08- E -25210		<u>35</u>	
RDZ09- N -25210		603		RDZ09- E -25210		41	
RDZ10- N -25210		863		RDZ10- £ -25210		47	
RDZ11- N -25210		170		RDZ11- E -25210		99	
RDZ12- N -25210		114	ļ	RDZ12- £ -25210		_54_	
RDZ13- N -25210		95		, RDZ13- € -25210		147	
RDZ14- N -25210		87		RDZ14- E -25210		67	
RDZ15- N -25210		60	<u>ם</u> أ	RDZ15- £ -25210		89_	Image: second control of the s
RDZ16- N -25210		37_	☑	RDZ16- E -25210		147	
RDZ17- N -25210		53_		° RDZ17- £ -25210		299	
RDZ18- N -25210		_54_		″ RDZ18- E -25210		174	
RDZ19- N -25210 RDZ20-N-25210 RDZ2 I-N -25210		66 92 85		RDZ19- E -25210 RDZ2 O-E-2521 0 RDZ2 I - E -25210	>	 65 53	
# of Samples:		1	12	# of Samples:			
stra2						044*0)	1 61 23



				23210
Sampled Address; 4371 HAMILTON ST Phone: Phone: Phone: Phone: Not paint Site grading and drainage (positive (sway from structure) or negative). Number of stones, roof overhang (measured if possible) and distance from ground to soffit. Peance of gutters (location of downspouls and drainage swales. Esterior-finish. Paint condition and XRF results District Scations and wall orientation from the protein of the sterior finish. Biggian place of the state of the		Omaha Lead Site	Exterior Paint	North Arrow
Beautiful and the process of the pro	Sampled Address: 4371 HAMILTON ST		☑ Good	1
as Site grading and drainage (positive (away from structure) or negative). Numbar of alones, roof overham (massured if possible) and distance from ground to soffit. Caterior finish. Paint condition and XRF results. Do features such as presence of vegetation, mulch, bare ground, visible paint chips, etc. Do features which will be taken at each DS sampling location. Additional photos may be taken. Other observations that could impact the potential for elevated soil lead concentrations in drip zones to develop. DOWNSPOUNT TYP A. NECAHIVE B. 35they 30:-3 C. YES D. Paint E. Good Paint E. Good Paint E. Good	Phone:		Poor	-
b. Number of stories, roof overhang (measured if possible) and distance from ground to soffit. C. Presence of guitters, location of downspouts and drisinage sweles. d. Extencificitish. D. Faurt condition and XRF results L. 02 features such as presence of vegetation, much, bare ground, visible paint chips, etc. D. 02 sample locations and vall of remarks (n. 16. E. W). D. Grand policy of the p			☐ Not paint	
G NORTH-EAST H. YES I. PAINT CHIES ORGUND FOUND	b. Number of stories, roof overhang (measured if pot c. Presence of gutters, location of downspouts and d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulcing. DZ sample locations and wall orientation (N. S. E. B. Bigital photos will be taken at each DZ sampling i. Other observations that could impact the potential orientation.	sessible) and distance from ground to soffit. drainage swales. Sh, bare ground, visible paint chips, etc. Sh	A. N. B. C. P. G. G. N. F. A. S. Y. A.	Story 30'-3' ES NINT OOD LASS ORTH -EAST US OUT Chirs OUT Chirs
MAMILTON OT AROUND FOUNDED NO GUHER ON LUPER REVIL			- ARI NO G	nund Foundation ulter on Recuire

In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	\neg
XRF Unit: Date: Staff:	Time:	_	-22	D Book: 219 -08 Time: Am	ASR:		
RYBSCPXA 2732	2 23			RYDSCPXA · 2732	16		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01-£ -27332		1094		0 RDZ01- W -27332	Conc.		
RDZ02-£ -27332		562		RDZ02-W -27332	Conc.		
RDZ03-E -27332		549		RDZ03- W -27332	2	175	
RDZ04-E -27332		157_		RDZ04-W -27332	2	157	
RDZ05-£ -27332		123		RDZ05- W -27332	2	48	
RDZ06-£ -27332		52_		RDZ06- W -27332	2	<u>53</u>	
RDZ07- £ -27332		_59		RDZ07- W -27332	2	32_	
RDZ08-£ -27332		33_		RDZ08- W -27332	2	35_	
RDZ09- £ -27332		23		RDZ09- W -27332	2	23	
RDZ10-£ -27332				RDZ10- W -27332	2	26	
RDZ11- E -27332		19		RDZ11- W -27332	2	21	
RDZ12- E -27332		21		RDZ12- W -27332	2	_22_	
RDZ13-E -27332		_15_		RDZ13- W -27332	2	23	
RDZ14- E -27332		14		RDZ14- W -27332	2	21	
RDZ15- E -27332		22		RDZ15- W -27332	2	_23_	
RDZ16-E -27332		12	☑ [RDZ16- W -27332	2		
RDZ17- E -27332		29		RDZ17- W -27332	2	16	ď
RDZ18-£ -27332		2		RDZ18- W -27332	2	21	
RDZ19- E -27332 RDZ20-E-27332 RDZ21- E -27332		18 13 24		RDZ19- W -27332 RDZ20-W-27332 RDZ21- W -27332	2	17 22 26	
# of Samples:				# of Samples:			

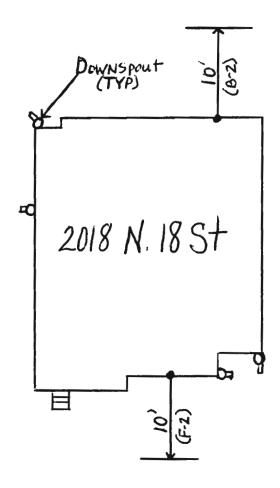


Sampled Address: 2018 N 18 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a Site grading and drainage (positive laway from	structure) or negative).		

- c. Presence of gutters, location of downspouts and drainage swales.

 d. Exterior finish. b. Number of stories, roof overhang (measured if possible) and distance from ground to soffit.

- e. Paint condition and XRF results.
- f. DZ features such as presence of vegetation, mulch, bare ground, visible paint chips, etc.
- g. DZ sample locations and wall orientation (N, S, E, W).
- h. Digital photos will be taken at each DZ sampling location. Additional photos may be taken.
- i. Other observations that could impact the potential for elevated soil lead concentrations in drip zones to develop.



A Fositive B 2 Story 20'-2'

C. YES D. PAINT

E Good

F GRASS

G EAST-WEST

H. YES

I PAINT Chips Around Foundation

In Situ Samp	les Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	$\overline{}$
XRF Unit:				10 Book: 219 08 Time: Am	ASR: Samples:		_
Staff:		Staff:		Tane. INA			
RYASCPXA 30170	23	_		RYCSCPXA.30170	25		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- N -30170		<u>354</u>		RDZ01- E -30170		99	
RDZ02- N -30170		27		RDZ02-£ -30170		93	
RDZ03- N -30170		32_		RDZ03-E -30170		_60	
RDZ04- N -30170		_47_		RDZ04- E -30170		44	
RDZ05- N -30170		37		RDZ05- £ -30170		90	
RDZ06- N -30170		46		RDZ06-E -30170		_39_	
RDZ07- N -30170		_34_		RDZ07-E -30170		_39_	
RDZ08- N -30170		32		RDZ08-E -30170		44	
RDZ09- N -30170		26		RDZ09- E -30170		26	
RDZ10- N -30170		4.3		RDZ10- £ -30170		26	
RDZ11-N -30170		29		RDZ11- £ -30170		28	
RDZ12-N -30170		31		RDZ12- £ -30170		39_	\overline{\pi}
RDZ13- N -30170		<u>25</u>	ज ,	RDZ13- E -30170		67	
RDZ14- N -30170		30_		RDZ14-E -30170		26	
RDZ15- N -30170		24_		RDZ15-E -30170		25	
RDZ16-N -30170		_33_		RDZ16- E -30170		_26	
RDZ17- N -30170		_23_		RDZ17- E -30170		_22_	
RDZ18- N -30170		29		RDZ18- E -30170		25	
RDZ19-N -30170		25		RDZ19- E -30170		<u>20</u>	
RDZ20-N-30170 RDZ2 I- N -30170		26		* RDZ20-E-30170 RDZ2I-E-30170		20	
# of Samples:				# of Samples:			
extra2						044^01	ot 23

Sampled Address: 1617 BINNEY ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor	North Arrow
Filone.	The second secon	Not paint	
Site grading and drainage (positive [away from struct. Number of stories, roof overhang (measured if possib Presence of gutters, location of downspouts and drain Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulch, by DZ sample locations and wall orientation (N, S, E, W). Digital photos will be taken at each DZ sampling locations that could impact the potential for or the sample of the potential for or the sample of the potential for or the sample of the sample of the potential for or the sample of the sample of the potential for the sample of the sample of the potential for the sample of	ele) and distance from ground to soffit. hage swales. are ground, visible paint chips, etc. b. tion. Additional photos may be taken.	s to develop.	
1 10'	<u> </u>	Do	wn5pout (TYP)
(8-1)		₽.	
τO	1617 BINNEY ST		
A. NEGATIVE B. 3 Story 30'-3' C. YES D. PAINT E. Good F. GRASS	10' (F-1)		
G. North-East H: YES I Paint Chips Around Founda	BINNEY ST	_	

In Situ Samp	oles Analyzed	Ex Sif	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:		·22· C	10 Book: 219 08 Time: Am	ASR: Samples:		
RYASCPX4 - 30178_	62		_	RYCSCPXA · 30178	25		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- E -30178		<u>48</u>		RDZ01- \$ -30178	WALK		
RDZ02- E -30178		36		RDZ02- S -30178	WALK		
RDZ03- E -30178		28		RDZ03- S -30178	WALK	`	
RDZ04- E -30178		46		RDZ04- S -30178	WALK		
RDZ05-E -30178		96		RDZ05- S -30178	WALK		
RDZ06-€ -30178		<u>55</u>		RDZ06- S -30178	WALK		
RDZ07- £ -30178		<u> 35</u>		RDZ07-S -30178		130	
RDZ08- E -30178		47		RDZ08-S -30178	3	_73_	
RDZ09- E -30178		23		RDZ09-S -30178	3	44	
RDZ10- £ -30178		24	y	RDZ10-S -30178	3	25_	
RDZ11- E -30178		40		RDZ11-S -30178	3	38_	
RDZ12- £ -30178		20		RDZ12-S -30178	3	31	
RDZ13-£ -30178		24		RDZ13- S -30178	3	30	Ø
RDZ14- E -30178		_27_		RDZ14-S -30178	3	31	
RDZ15- E -30178		20		RDZ15- \$ -30178	3	33	
RDZ16- £ -30178		_25_		RDZ16- 5 -30178	3	_30_	
RDZ17- £ -30178		25		\int_{102}^{∞} RDZ17- S -30178	3	33	
RDZ18- E -30178		24		RDZ18-\$ -30178	3	9	
RDZ19- £ -30178 RDZ20-E-30178 RDZ21- 5 -30178		<u>58</u> 21 28		RDZ19- S -30178 RDZ20- S -30178 RDZ2 I-S -30178	3	18	
# of Samples:				# of Samples:			
						0.4470	01-01-23

	Omaha Lead Site	Exterior Paint	North Arrow
Sampled Address: 1519 BINNEY ST	Site Sketch	☑ Good .	1
Phone:	One one con	Poor	L
	-	☐ Not paint	
A. Fosi five B. 2 Story 20'-2' C. yes D. Paint Conk B. 2 Story 20'-2' C. yes D. Paint Conk B. 2 Story 20'-2' C. yes D. Paint Conk B. 2 Story 20'-2' C. yes D. Paint Conk B. 2 Story 20'-2' C. yes D. Paint Chips D. Paint Chips D. Paint Chips D. Paint Chips D. A. Fosi five B. 2 Story 20'-2' C. yes D. Paint B. Conk B. Exer-South H. Yes L. South H. Yes L. South H. Yes L. South H. Yes L. Paint Chips Around Foundation H. Yes L. Paint L. Pa	d distance from ground to soffit. wales. bund, visible paint chips, etc. dditional photos may be taken.	to develop.	Downspout (TYP)

In Situ Samples Analyzed Ex Situ Samp			oles Analyzed	Lab Samp	oles Analyzed		
XRF Unit: Date: Staff:		- 1	7-18	0 Book: 219 -08 Time: Am	ASR:		
RYCSCPXA-30327	23	_		Overhang:			
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- W -30327		219		RDZ01- N -30327		155	
RDZ02- W -30327		<u>83</u>		RDZ02- N -30327		39	
RDZ03- W -30327		23		RDZ03- N -30327		38	
RDZ04- W -30327		<u> 68</u>		RDZ04- N -30327		63	
RDZ05- W -30327		_31_	ן ֶּ	RDZ05- N -30327		36	
RDZ06- W -30327		67	اً 🗖	RDZ06- N -30327		_52_	
RDZ07-W -30327		45	اِ 🗖	RDZ07- N -30327	,	_35_	
RDZ08- W -30327		<u>48</u>		RDZ08- N -30327	,	_23_	
RDZ09- W -30327		16	اً 🗖	RDZ09- N -30327	,	22	
RDZ10- W -30327		40	اِ 🗖	RDZ10- N -30327	,	18	
RDZ11- W -30327		_18_	اً 🗖	RDZ11- N -30327		27	
RDZ12- W -30327		26	اً 🗖	RDZ12- N -30327	,	_30_	
RDZ13- W -30327		_28_	y	RDZ13- N -30327	,	21	
RDZ14- W -30327		_26	<u></u>	RDZ14- N -30327	·	23	
RDZ15- W -30327		<u> 30</u>	اً 🗖	RDZ15- N -30327		25	
RDZ16-W-30327		23		RDZ16- N -30327		31	
RDZ17- W -30327		30	<u></u>	RDZ17- N -30327	,		
RDZ18- W -30327		23		RDZ18- N -30327			
RDZ19-W-30327 RDZ20-W-30327 RDZ21-W-30327	7	21 30 38		RDZ19- N -30327 **RDZ20-N-30327 RDZ21-N -30327	27	22 20 19	
# of Samples:				# of Samples:			
tem 2						04450	1 (1 22



Sampled Address: 1512 BINNEY ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
a. Site grading and drainage (positive [away from structure] b. Number of stories, roof overhang (measured if possible) c. Presence of gutters, location of downspouts and drainage d. Exterior finish. e. Paint condition and XRF results. f. DZ features such as presence of vegetation, mulch, bare g. DZ sample locations and wall orientation (N, S, E, W). h. Digital photos will be taken at each DZ sampling location i. Other observations that could impact the potential for elever	and distance from ground to soffit. e swales. ground, visible paint chips, etc Additional photos may be taken.	to develop.	
	10' (B-1)		
(B-1)	15/2 Binney		DOWNSPOUT (TYP)
A. Positive B. 3Story 30'-3' C. YES D. PAINT E. Good F. GRASS G. WEST-NORTH H. YES I. PAINT Chips Around Foun	BINNEY	St.	

				7(15,1)			
In Situ Samp	oles Analyzed	Ex Si	tu Sam	ples Analyzed	Lab Samp	oles Analyzed	
XRF Unit: Date: Staff:	Time:	-		O Book: <u>219</u> - <u>08</u> Time: <u>Am</u>	ASR: Samples:		
RYBSCPXA-33775_	20			 RYDS <i>CP</i> XA:33775	27		
Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB	Sample Number	In Situ Lead Concentration	Ex Situ Lead Concentration	LAB
RDZ01- E -33775		640		 RDZ01- W -33775		32_	¥
RDZ02- € -33775		127		RDZ02- W -33775		_31_	
RDZ03- E -33775		123		RDZ03-W -33775		30	
RDZ04- E -33775		_135_		RDZ04- W -33775		36	
RDZ05-E -33775		215		RDZ05- W -33775		_29_	
RDZ06- £ -33775		231		RDZ06- W -33775		41	
RDZ07- E -33775	WALK			RDZ07- W -33775		<u>33</u>	
RDZ08- € -33775	WALK			RDZ08-W -33775		41	
RDZ09- E -33775	WALK			RDZ09-W -33775		_24_	
RDZ10- E -33775	WALK			RDZ10- W -33775		_51_	
RDZ11-E -33775	WALK			RDZ11- W -33775		23	
RDZ12- E -33775	WALK			RDZ12-W -33775		_27_	
RDZ13- E -33775		272		RDZ13- W -33775		24	
RDZ14- E -33775		<u>54</u>		RDZ14- W -33775		_22_	
RDZ15- E -33775		49		RDZ15-W -33775		_22_	
RDZ16- E -33775		<u> </u>		RDZ16- W -33775		21	
RDZ17-E -33775		44		RDZ17-W -33775		_28_	
RDZ18- E -33775		41		RDZ18-W -33775		125	
RDZ19- E -33775		33		RDZ19- W -33775		_27_	
RDZ20- £ -33775		23		RDZ20-W -33775		23	Ø
# of Samples:				# of Samples:			
£·21 - 2 S-05-Ha	9			W-21 - 2	13	04470	01 01 23



	Sampled Address: 4106 N 21 ST Phone:	Omaha Lead Site Site Sketch	Exterior Paint Good Poor Not paint	North Arrow
b. c. d. e. f. [g. h.	Site grading and drainage (positive [away from str Number of stories, roof overhang (measured if po Presence of gutters, location of downspouts and of Exterior finish. Paint condition and XRF results. DZ features such as presence of vegetation, mulc DZ sample locations and wall orientation (N, S, E Digital photos will be taken at each DZ sampling I Other observations that could impact the potential	essible) and distance from ground to soffit. drainage swales. h, bare ground, visible paint chips, etc. , W).	to develop.	
		↑		•
		` √?	:	
		99		•
	•	*q	3 2	
		· · ·	Down	(SPOUT YP)
		4106 N.21St	×	· · · · · · · · · · · · · · · · · · ·
		1100 111,5101	WAL	
1				
-				
		S E		•
	A NEGATIVE			
	B 3 Story 30'-3' C YES	10,		
-	C YES	10		•
	D. Siding + PAINT E. Good			
	F. EAST GRASS - WALK - WEST - GRASS	NOICH		
	6. East - WEST	N21St		
	H. YES			
	I NONE			